EuroCUT Professional 5

Manual

EUROSYSTEMS

EUROSYSTEMS SOFT- UND HARDWARE ENTWICKLUNG S. A. R. L.

Important Customer Information about EuroCUT Professional

Please check the contents of your software package as soon as possible upon receiving it. Should any items be missing, immediately contact the dealer from whom you have purchased the software.

EuroCUT is available in three different versions:

EuroCUT Light, Basic and **Professional**

The three versions differ in their functions and in the contents of the package.

All three versions include the EuroCUT Professional user manual, in which ***all*** the functions of the different versions are described in detail.

If some functions are described in the manual which are not included in your version of EuroCUT, they do not belong to your package.

A complete package of **EuroCUT Professional** should contain the following items:

- 5 **Program disks or 1 CD including EuroFONTER**
- Copy protection key/**dongle**
- CD-ROM with 500 fonts
- User manual
- Registration card

Besides the program disks, the most crucial item is the copy protection key/dongle. The number printed on the dongle must match the serial number located inside the front cover of your manual.

Underneath the dongle number, you will find your **personal code** (e.g. 1234567,123456). This code number must be entered upon successful installation and initial startup of the software. Make sure you enter the number correctly, or you will not be able to restart the program.

Important note: *An update does not contain any of the following: font disks, CD-ROMs, value pack or dongle.*

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In an effort to help you solve any problems and answer your questions as quickly and efficiently as possible, we provide our ***Technical Support Line***. This is a toll free number you can call if you have any technical questions about our products.

This service is available to you free of charge.

Mon. - Fri. from 9.00 am to 12.00 am

Mr Holz Phone ++49 6502 9288 11

You can find further useful information including tips and tricks on our web site:

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under the rubric ***Hotline & Support.***

Our support staff have been instructed only to provide assistance to registered users. When calling, faxing or e-mailing, please provide the following information.

- **Dongle number** of your EUROSYSTEMS product
- Version number, i.e. EuroCUT Professional **5**
- Date of **manufacture** of your original program disks
- Printout of your product's file list (**Help** menu/menu item **About** ...)

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February 2000

About this Manual

Along with this manual, you have received the latest version of EuroCUT, **EuroCUT Professional**. This version contains a host of new features which will help you design all types of quality signs and sign-related products with ease and confidence. The drivers supplied with the program will assure high-quality output from nearly all plotters available.
The manual is divided into nine chapters.

Chapter 1, **How to Install EuroCUT** describes the installation of EuroCUT on your computer. Please follow the instructions carefully since only proper execution of all procedures will assure trouble-free setup and operation of EuroCUT.

Chapter 2, **How to Work with EuroCUT Professional**, is an introduction to the basic use of this program.

Chapter 3, **Sample Jobs**, presents a series of signmaking jobs designed to help you apply the procedures described in Chapter 2. The projects have been selected specifically to make use of most features available in EuroCUT Professional. Following each step and recreating it on your computer is a quick and easy way to learn to work with EuroCUT.
This section also includes many tips and shortcuts which will make working with EuroCUT even easier.

In Chapter 4, the **Reference Section**, all menus and menu items are discussed in detail. Each function is described in chronological order.
This section, as the name implies, is designed and laid out as a reference manual. You should always refer to this part of the manual first if you have questions or doubts regarding a specific procedure.

Chapter 5, the **Windows Overview**, briefly describes all elements of Windows with which the EuroCUT user should be familiar to effectively use the program and the cutting device.

Chapter 6, the **Kerning Editor**, explains how to eliminate unsightly gaps that often occur when individual characters are placed next to each other to form a text string. Certain combinations of characters have to be modified and the spacing

adjusted so that the appearance of the typeface is more harmonious.
Chapter 7, the **EuroFONTER**, explains how you can put an end to the font chaos on your computer. This font management program widens the scope of the Adobe Type Manager and Windows font management and is especially suited for use with Windows.

Chapter 8, **Tips and Tricks**, presents a selections of the problems frequently addressed to our Hotline and Support and describes possible solutions.

Hardware and Software Requirements

To use EuroCUT-Professional, you need the following equipment:

- 486 DX with a minimum of 8 MB of RAM; a Pentium 266 with 64 MB of RAM is recommended.
- Microsoft Windows version 95 or later
- Adobe Type Manager™ (ATM), Version 2.42 or later*

Note: *If you are using* ***Windows NT4.0*** *you can only use True Type fonts.*

- Video Display running at 800 x 600 with 16 colors

Incompatibilities

There are known incompatibilities with certain IBM computers (Value Point Series 486 DX2/66 with PC-DOS prior to version 6.3) and with 386/40 computers from AMD. The processor boards from these series of computers can create problems with the co-processor.

Driver incompatibilities can occur with Logitech mice and some high-resolution graphics cards from various manufacturers; however, these problems can generally be eliminated by updating the drivers.

User Manual Format

To make this manual more easily readable, the same symbols and type styles are used throughout. The following is an explanatory chart designed to help you find and interpret these visual aids more easily.

Visual Aid Chart

Symbol / Type style	Interpretation
bold	Headings
italic, **bold**, colon	***Notes:***
italic	*Note text*
bold, *italic*	***Menus****,* e.g. ***File*** menu functions, fields, options, commands, icons, e.g. ***New*** command
CAPITALS	Keys, e.g. SHIFT
KEY1+KEY 2	The plus sign (+) between two keys means that you have to hold down the first key when you press the second key. Then you release both keys.
KEY1,KEY 2	A comma (,) between two keys means that you press the keys one after the other and release them.
	Shortcut

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Introduction

Welcome to EuroCUT Professional, the innovative signmaking software that will help you design all types of signs and sign-related products and cut them out of a variety of materials. Whether you are new to sign-making or consider yourself an expert, EuroCUT gives you all the tools you need for professional results.

You will soon realize just how powerful EuroCUT is, whether your application is display or vehicle graphics, signmaking, or exhibit building. You may be involved in screen printing, vehicle lettering, or stencil cutting EuroCUT is equally capable of handling any of these tasks. And there are many more applications: e.g.

Stone masons, wood working	-	sandblasting applications
Department stores	-	window displays
Film, photo and TV studios	-	design of movie and TV-studios theater props, directional signage
Builders, architects	-	construction and architectural signage
Major corporations	-	interior and exterior signage, exhibit displays

Before you begin working with EuroCUT Professional, you should be familiar with the basics of operating your PC and Microsoft Windows.

A detailed description of the required procedures can be found in your Microsoft Windows manual.

1. How to Install EuroCUT

Single Work Station

Please follow these instructions carefully to ensure EuroCUT is correctly installed

The complete version 5 of EuroCUT Professional contains a total of 5 disks or 1 CD-ROM.

Step 1: Plug the dongle supplied with EuroCUT into your computer's ***parallel*** port (or *printer port LPT 1*). Secure the dongle by tightening the two screws.

Attaching the dongle

Step 2: **Windows 95:**
Choose the ***Port*** icon under icon under Start/Settings/Control Panel/Device Manager.

Configuring serial port

Windows NT:
If you are using Windows NT as operating system you will find the ***Port*** icon under: Start/Settings/Control Panel.

Windows 3.11:
Select Control Panel in the main menu of the Windows program manager and click the ***Port*** icon. A dialog box appears in which you can now select the appropriate port (e.g. COM1) and parameters for your plotter. The standard parameters are as follows:

Baud rate:	9600
Data bits:	8
Parity:	none
Stop bits:	1
Flow control:	**hardware**

Also make sure ***Advanced Settings for COM1*** are set as follows: the applicable I/O addresses for COM1 are 03F8 and IRQ4; for COM2, 02F8 and IRQ3.

Step 3: Install the ***Adobe Type Set*** Value Pack.(not included) From the Windows 3.11 Program Manager, select ***Run*** in the ***File*** menu. Under Win95/ type ***B:\install*** or ***A:\install*** in the c*ommand line* box, depending on the disk drive you intend to use.

Adobe Type Manager Installation

Step 4: **Windows 95 and NT:**
Select *Run* in the *Start* menu.

EuroCUT Installation

Windows 3.11:
Start Windows and from the Program Manager select ***Run*** in the ***File*** menu.
Start Windows and select *Run* in the *File* menu.

Note: *Before you begin with the installation, please make sure your DOS autoexec.bat file contains the share.exe command. If this is not the case, the Share command must be added. The easiest way to do this is with the MS-DOS editor, edit.com.*

Insert program disk 1 or CD-ROM in the appropriate disk drive. Type A*:\install* or *E:\install* in the *command line* box, depending on the disk drive you intend to use.

After a few seconds a window titled EuroCUT Professional Setup appears.

To continue installation click the ***Continue*** button.

Start Installation

EUROSYSTEMS Licensing Agreement dialog box

Licensing Agreement

Once you have confirmed that you accept the EUROSYSTEMS licensing agreement, the actual installation will start.

Choose Target Path dialog box

In this dialog box you can select the directory in which you wish to install EuroCUT Professional. C:\Windows\Eurocut is usually proposed. If you wish to install EuroCUT in another directory, click the ***Search*** button and enter the desired target directory in the upcoming dialog box under ***Path***.

Choose Target Path

Select Type of Installation

Type of Setup Dialog Box

There are three possible ways of installing EuroCUT Professional.

Standard:	EuroCUT is completely installed. (This method is recommended.)
Minimal:	Only the necessary functions of EuroCUT are installed.
User defined:	EuroCUT is installed according to the user's specifications, i.e. the user can select the options he considers to be important. This option is only recommended for advanced users.

Note: This type of installation should also be selected for installing drivers at a later date.

Select Program Folder

Select Program Folder dialog box.

Here the default is the EUROSYSTEMS folder. You can define a new program file by typing its name in the command line.

Changing disk

Wait until you are asked to change the disk and then follow the further instructions.

Ending Setup

End Setup Dialog Box.

If you click the ***End*** button in the ***Setup*** dialog box, EuroCUT will be started and you will be asked to enter your name and your code number.

Entering Your Code Number

You will find your ***personal code number*** inside the back cover of your manual.

Note: *Please always type your complete code number, including the comma.*

Online Registration

Once you have entered your personal code number, EuroCUT will be started and the ***Online Registration*** dialog box will appear.

Installing EuroCUT Fonts

Step 5 You are now ready to install your EuroCUT fonts via the Adobe command ***atmcntrl.exe***. To do this, open the windows ***File*** menu, and click once again on ***Run***. Enter ***atmcntrl*** in the command line box. Then click on ***Add*** in the ***ATM Control Panel***. From the list of directories, choose the font directory ***C:\psfonts\pfm***. In the list of ***Available Fonts,*** click and select all the fonts you wish to install by keeping the left mouse button depressed. Then click on ***Add*** in the ***ATM Control*** **Panel.** Finally, increase the ***Font Cache*** to a minimum of 512 Kb (1024 Kb is preferable).

You can also select individual fonts with CTRL

Step 6: Close all applications and restart your computer.

Start EuroCUT with a double click on the ***EuroCUT*** icon in the EUROSYSTEMS panel.

Your EuroCUT software is now ready to go!

ID Sticker Information

1. Program name
2. Dongle number
3. Personal code number with version identification ( ), e.g. P
4. 7-digit code number +, (comma) + 6-digit number

Installing CoRun Auto Export Filter for CorelDRAW 6, 7, 8 & 9 and EuroCUT Professional

Note*: The instructions on the following pages only apply to EuroCUT Professional 5.2 and CorelDRAW 6, 7, 8 & 9. In EuroCUT Professional data exchange between CorelDRAW 6, 7, 8, & 9 and all applications that are able to import and export the CorelDRAW format are performed using drag & drop.*

CoRun is not installed for CorelDRAW versions 3, 4, & 5.

Function*: CoRun exports CorelDRAW data automatically* ***– at the touch of a button*** *– to EuroCUT Professional.*

System requirements: Win 95, 98 & NT, EuroCUT Professional 5.3, CorelDRAW 6, 7, 8 & 9.

Note: *To ensure that CoRun is properly installed make sure that the Script Compiler is also installed when installing CorelDRAW 6. This is automatically carried out when standard installation is selected.*

CoRun is automatically installed on your hard drive when complete installation of EuroCUT Professional 5.3 is selected.

Note*: CoRun is* ***not*** *automatically integrated into CorelDRAW.*

Linking CoRun Macro (CorelDRAW™ 6) to the Toolbar

- Select the ***Extras*** menu
- Select ***Adjust***
- Select ***Symbol Bars***
- Double-click on ***General Script***
- Select ***corun 6.csc*** from the list of scripts
- Choose any symbol you wish and drag it to the CorelDRAW toolbar with the left mouse button held down.
- Click on the ***OK*** button.

Linking CoRun Macro (CorelDRAW™ 7) to the Toolbar

- Select the ***Extras*** menu
- Select ***Adjust***
- Select ***Symbol Bars***
- Double-click on ***Script Applications***
- Select ***corun 7.csc*** from the list of scripts
- Choose any symbol you wish and drag it to the CorelDRAW toolbar with the left mouse button held down.
- Click on the ***OK*** button.

Linking CoRun Macro (CorelDRAW™ 8) to the Toolbar

- Select the ***Extras*** menu
- Select ***Options***
- Select *Working Area/Adjust/* ***Symbol Bars***
- Double-click on ***Script Applications***
- Select ***corun 8.csc*** from the list of scripts
- Choose any symbol you wish and drag it to the CorelDRAW toolbar with the left mouse button held down.

- Click on the ***OK*** button.

Linking CoRun Macro (CorelDRAW™ 9) to the Toolbar

- Select the ***Extras*** menu
- Select ***Options***
- Select *Working Area/Adjust/* ***Symbol Bars***
- Double-click on ***Script Applications***
- Select ***corun 9.csc*** from the list of scripts
- Choose any symbol you wish and drag it to the CorelDRAW toolbar with the left mouse button held down.
- Click on the ***OK*** button**.**

Linking Corun Professional Script with the CorelDRAW 10 toolbar

Important note: *CorelDRAW must be installed with the "Visual Basic for Application."*

This option can be installed as follow:
Insert the CorelDRAW 10 CD in the disk drive / Start setup / Select "Customize setup".
If a CorelDRAW 10 version already installed on your computer, first select " User-defined setup" and then "Customize setup". In the dialog which now opens double-click on ***Main Applications*** or click once on the ***Plus***. Double-click on ***Productivity Tools*** and select "Visual Basic for Application". After installing Corun you have to link the Corun script with the menubar.

- Select the menu ***Tools***/***Adjustment***

- From the left-hand set of options select ***Workspace***/***Customization***/***Commands***

- Click once in the File box on the right of the list of options, select Macros and drag Corun10Prof.Corun... to the menubar of CorelDRAW 10.

- Now select the ***Appearance*** tab. Click on the ***Import*** button and select any symbol you want.

- ***Note:*** *The symbol disappears every time you restart CorelDRAW and the book-icon (standard default-icon) appears. (CorelDRAW Bug)*

- From the left-hand set of options select ***Workspace***/***Customization***/***Commands***

- Change the name of the"New sysmbol bar 1" to Corun Professional.

- Click OK in the Options dialog box

Where can I find Corun in Freehand 8?

You can find Corun in ***Xtras*** under ***Animate*** and in the ***Window*** menu/***Xtras*** under ***Functions***.

How can data be exported from Freehand to Corun ?

Sart Corun and if objects are selected, only the selected objects will be exported to Corun.

Sart Corun and if no objects are selected, ***all*** object located in your working area will be exported to Corun.

Restriction: Fountain fills and lens effects are not supported.

Note: *Freehand 8 has a color correction mechanism (like, for example, CorelDRAW)), which affects the display of colors in Freehand.*

Solution*: Turn off this function via* ***File/Setting/colors.***

Where can I find Corun in Adobe Illustrator 8?

You can find Corun in the ***File*** menu under ***Export***.

How can data be exported from Illustrator Corun ?

Sart Corun and if objects are selected, only the selected objects will be exported to Corun. Any texts to be exported will automatically converted to curves.

Note: If no objects are selected, the CoRun auto export filter is not active.

Restriction: Special fountain fills are not exported.

Where can I find Corun in the various AutoCAD versions?

Installation of Menu File for AutoCAD LT 98

Select ***Adjust Menus*** in the ***Extras*** menu. In the dialog box appearing click on the ***Scroll*** button. This opens the ***File Selection*** dialog box. Set the file ending to *.mnu um. Select the Corun.mnu file and close the dialog box.
Click on the ***Load*** button and then on ***OK*** in the enquiry dialog box.
The Corun menu has now been loaded.
Now switch to the ***Menu Bar*** dialog box in the upper tab. Select Corun Plot and insert it in the desired place in the AutoCAD menu.
Corun is now to be found in the menu list and a Corun toolbar is added to the toolbars.

Installation of the Menu File for AutoCAD R14

Select ***Adjust Menus*** in the ***Extras*** menu. In the dialog box appearing click on the ***Scroll*** button. This opens the ***File Selection*** dialog box. Set the file ending to *.mnu um. Select the Corun.mnu file and close the dialog box.
Click on the ***Load*** button and then on ***OK*** in the enquiry dialog box.
The Corun menu has now been loaded.
Now switch to the ***Menu Bar*** dialog box in the upper tab. Select Corun Plot and insert it in the desired place in the AutoCAD menu.
Corun is now to be found in the menu list and a Corun toolbar is added to the toolbars.

Installation of the Menu File for AutoCAD 2000LT & 2000

Select ***Adjust Menus*** in the ***Extras*** menu. In the dialog box appearing click on the ***Scroll*** button. This opens the ***File Selection*** dialog box. Set the file ending to *.mnu um. Select the Corun.mnu file and close the dialog box.
Click on the ***Load*** button and then on ***OK*** in the enquiry dialog box.
The Corun menu has now been loaded.
Now switch to the ***Menu Bar*** dialog box in the upper tab. Select Corun Plot and insert it in the desired place in the AutoCAD menu.
Corun is now to be found in the menu list and a Corun toolbar is added to the toolbars.

Installation of the Menu File for AutoCAD LT98 and R14

Select ***Printer Setup*** in the ***File*** menu. In the dialog box appearing click on the ***Open*** button and select the

Corun/t98.pc2 (LT98) file or ***Corunr14pc (R14)*** file. Quit the dialog box.
Now start a printing job by clicking on ***Print*** in the ***File*** menu to make the following settings:
Click on ***Plot to File***, set the ***Resizing Factor*** to 1:1 and the ***Unit*** to mm.

Note*: Make sure the* ***Plot To File*** *checkbox is activated when making the first plot.*

This procedure ensures that all drawing elements are transmitted. The ***Pen Change*** commands from the ***Plot*** file are interpreted so that 8 layers can be separated.
AutoCAD does not plot with arcs, i.e. all elements are converted into lines and dots are interpreted as drill holes.

Note*: If you are using DXF, you have to press RETURN twice after selecting the object, as the execution of the menu macros is interrupted by the object selection.*

Note*: With export via DXF lettering and texts are not exported, but it is possible to select objects and plot them. The curves are not converted to lines but are changed from the splines or arcs in the DXF file into Bezier curves.*

Note: *The number of layers is not restricted to 8.*

In the Windows autostart group a connection to the autoimp.exe program is made during installation, so that the data can be exported to Corun. When autoimp.exe is started, an icon will be displayed in the system bar at the bottom right of the screen. The program can be ended by making a double click on this icon.

Note*: If the icon is turned off, the data will not be exported to Corun.*

The program can be restarted via Start/Programs/Autostart/ Auto-Import for Corun.

Note*: When installing, make sure that Corun for AutoCAD is only installed for the last used AutoCAD version when several AutoCAD versions are installed on your computer*

Example of Data Transmission with CoRun

Start CorelDRAW. Open, import or create a job. If the job contains several objects and no object is selected, CoRun transmits *all* objects to EuroCUT. If some objects are selected, only the selected objects will be transmitted to EuroCUT.

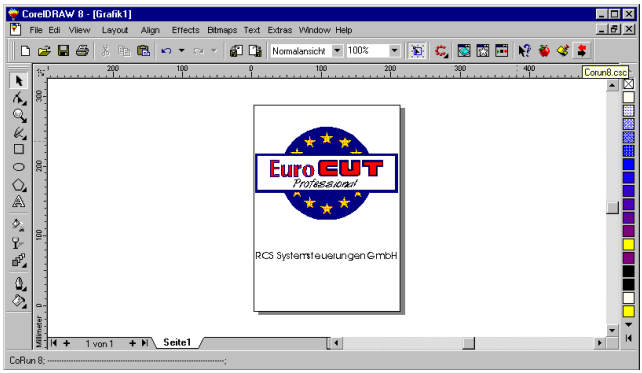


Fig. 1: Job in the CorelDRAW Working Area

If you click on the ***CoRun*** button EuroCUT is opened and the imported job is displayed on the lower left of the EuroCUT working area.

Note: *Text objekts are automatically converted to curves using CoRun.*

Exception: *Paragraph text has to be converted to artistic text before being transmitted to EuroCUT.*

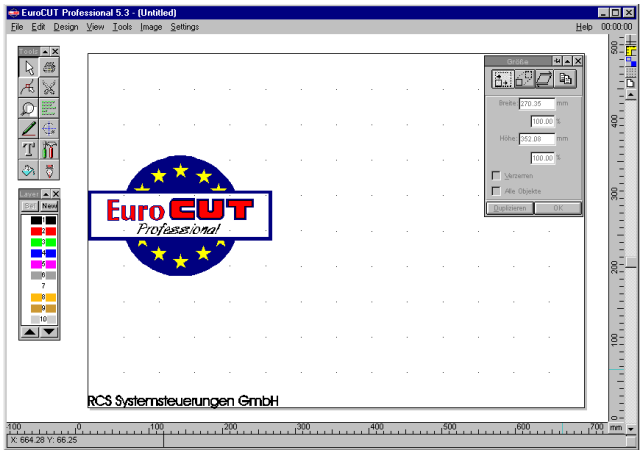

EuroCUT Professional 5.3 - (Untitled)
File Edit Design View Tools Image Settings Help
EuroCUT Professional
RCS Systemsteuerungen GmbH

Fig. 2: Data imported with CoRun in the EuroCUT Working Area

Note: *If various changes still have to be made to the job in EuroCUT, the first step must be to break up the group (**Object** menu, **Ungroup**).*

Installing EuroCUT Professional Using the MS-DOS 6.2x Operating System.

Before installing EuroCUT check that your system configuration ***config.sys*** contains the entry **_DEVICE=C:\DOS\HIMEM.SYS.**

Make sure that the system directory (\DOS) and not Windows is specified as the source directory for the ***himem.sys*** file. Without this setup, the screen display and functioning of EuroCUT may be considerably slowed down. You can use any text editor to edit your ***config.sys***.

Installing EuroCUT Professional Using Windows NT

Install EuroCUT Professional as described in the installation instructions.

Note: *If you are using Windows NT an Adobe Type Manager Deluxe 4.x has to be used so that the Adobe Type 1 fonts can be properly managed. The Adobe Type Manager Deluxe 4.x is not included in the EuroCUT Professional package*

Network Installation

If you intend to install EuroCUT on a computer network, the path to the ***cutter.dat*** file must be modified to include read and write options. This task should be left to your systems administrator. The path to this file is variable and can therefore be adjusted to meet any security requirements.

Using a text editor, this path can be modified in the ***eurocut.ini*** file ***[JOB]*** section.

The EuroCUT Ini file is located in the EuroCUT directory following a non-individual installation.

Multi-User Diskette

A special multi-user version of EuroCUT Professional is available. The multi-user diskette contains design features only, **without cutting** options.
This multi-user version can be installed on any networked station.

Provided a common data pool is set up on the network, multi-user jobs can be sent to the output device via the main computer, i.e. the one with the copy protection key or dongle.

The multi-user version is ideally suited for design workgroups. It maximizes both the productivity of the workgroup and the capabilities of any decentralized workstation.

The installation of a multi-user diskette is identical to the one previously described for the complete version and requires **A:\setup** or **B:\setup** (please see Installation, Step 5).

The multi-user diskette is not included in the standard package but can be obtained from your dealer.

Site License

When you purchase a EuroCUT site license, you obtain an additional complete copy of the program, which can be installed in a separate location from your main computer system.

Site licenses are particularly useful for branch or mobile systems.

This is a good way to circumvent order bottlenecks or facilitate business expansions. Prerequisite for obtaining a site license is, of course, a registered main license.

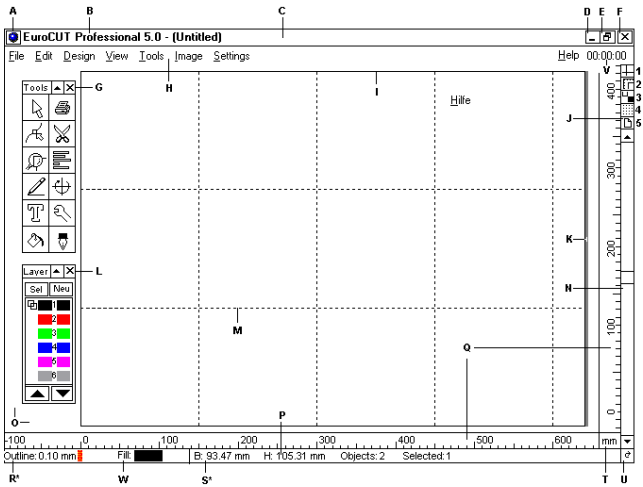
Installing a site license package is identical to installing the complete EuroCUT program without font installation.

2. How to Work with EuroCUT

2.1 The EuroCUT Desktop With Working Area

In this chapter you will learn the basics of working with EuroCUT. You will be introduced to such items as the desktop, the tools, the text editor, data import and export, loading and saving jobs, as well as cutting.

After EuroCUT has been started, the following window appears:



A) Symbol panel
B) Window title
C) Title bar
D) ***Symbol*** button
E) ***Full image*** button
F) ***End*** button
G) Toolbox
H) Menu line
I) Working area
J.) Ruler buttons
1. Hair cursor on
2. Ruler on
3. ***Full color*** button
4. Grid on
5. Define working area
K) Shadowing
L) Layer box
M) Grid/Line pattern
N) Vertical scroll bar
O) Desktop 30m x 30m/12 inch x 12 inch
P) Horizontal scroll bar
Q) Rules
R) Mouse coordinates*
S) Status bar*
T) Units of measurement
U) ***Direction of rotation*** button
V) Stopwatch
W) Fill

* In EuroCUT the horizontal scroll bar and the status bar are combined. The bar switches between the two functions when the mouse cursor is directed to part of it.

The rulers can be positioned freely or completely turned off.

The units of measurement (cm, mm, inch) can be changed by simply clicking a button. The button is located in the lower right corner where the horizontal and vertical scroll bars meet.

In the status bar there is extensive information about the objects to be found on the working area, such as wireframe, fill, dimensions, number, combination or grouping.
The various elements in the menu line will be dealt with in detail in Chapter 4, **Reference Section**.

Explanations of the Cursor Shapes in the Working Area

Cursor shape Explanation

No object selected

Note: *You can select an object by positioning the mouse cursor on it and pressing the left mouse cursor.*

Move object

Note: *This type of cursor is only active when the cursor is located in the interior of the object or in the area between the 8 black squares on the wireframe. The object must be selected.*

Enlarge object vertically

Enlarge object horizontally

Enlarge object diagonally

Note: *The cursors for changing the size of objects are only active when the cursor is located in the area between the 8 black squares on the wireframe of the object.*

You can switch into the ***Skew/Rotate*** mode by clicking once on the left mouse button with the cross cursor activated.

Cursor shape explanation

Object in ***Skew/Rotate*** mode

Rotate object

Skew object

2.2 The Toolbox

STRG+1

Upon initial start-up of EuroCUT, you will find the toolbox in the upper left corner of your screen. It contains 10 or more icons.

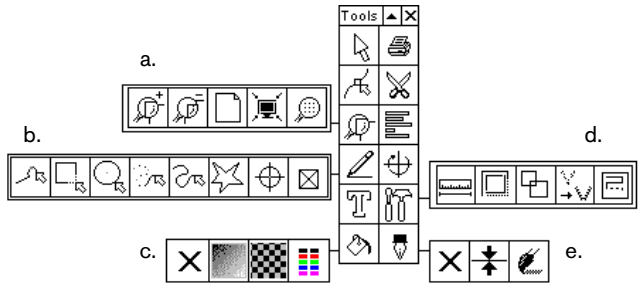
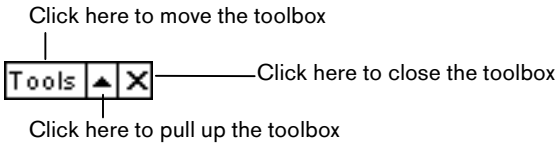


Fig. 3: The EuroCUT Toolbox and its *Flyout* Menus



a. Flyout Menu for the ***Zoom Tools***

b. Flyout Menu for the ***Drawing Tools***

c. Flyout Menu for the ***Fill Tools***

d. Flyout Menu for ***Other Tools***

e. Fly-Out Menu for the ***Pencil Tools***

Note: *Redisplay the toolbox via* ***Toolbox On*** *in the* ***Settings*** *menu.*

The toolbox can be moved at any time by clicking the bar at the top and dragging it to the desired location. When you exit the program, EuroCUT will save the last position of the toolbox.

2.2.1 The *Arrow* Tool

Fig. 4: The *Arrow* Tool

The arrow tool, also known as the general work tool is used to select, move, temporarily group and resize text or objects

- **Select**

Click on any point of the object and it is automatically selected, i.e. a frame defined by eight small squares appears around it. When working in the ***Edit Wireframe*** (F9)mode, you must click on the outline of the object to select it

Note: *To select individual characters in a text string, the text must first be converted to an image by using the* ***Text to Curves*** *command in the* ***Edit*** *menu. The selected letter(s) can then be detached from the string by pressing SHIFT+L.*

- **Move**

To move objects, simply select and drag them to the desired location with the left mouse button.

- **Resize**

You can proportionally resize objects by grabbing one of the 4 handles or corner squares of the frame around the object. Double-clicking on one of these corner squares opens the ***Object Attributes***...dialog box in which you may enter specific values under ***Size.***

To resize an object non-proportionally, double-click on the squares located between the corner markers.

To resize by eye (proportionally or non-proportionally), simply grab the appropriate square and drag it until the desired size has been attained.

2.2.2 The *Node Editing* Tool

The node or point editing tool lets you ***Move, Add, Join, Break*** and ***Align*** nodes or points.

Fig. 5: The Node Button

Click on the node-editing button (the cursor changes its shape) and subsequently on a point of the object or text string.

The text or object is now displayed as follows:

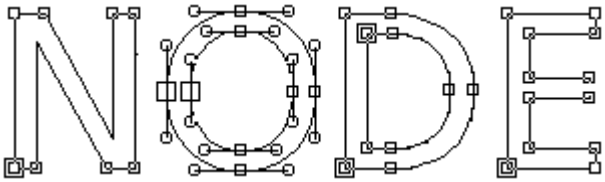


Fig. 6: An Object in the *Node-Editing* Mode

Tip: *By hitting the SPACE BAR on your keyboard, you can easily switch back and forth between the arrow tool and the node-editing tool.*

All corner points are displayed as squares, while all points on a curve are displayed as circles. The latter are in fact called tangential points.

The starting point of the object is displayed as a double square (a smaller square inside a larger one).

To select individual nodes or tangential points, simply click on them with the node-editing tool. To indicate selection, the points are bolded (filled in). It is thus easier to recognize selected nodes or tangents, which considerably facilitates node editing.
You can click on the different points and move them by pressing down the left mouse button.
Moving a tangential point will reshape the corresponding curve.

Note: *To select multiple points, click on the first point, then hold down the SHIFT key while continuing to click on the other points.*

The same can be achieved by clicking a short distance away from the first point and dragging a frame around it and all other points you wish to select.

Double-clicking on a node activates the ***Node Editing*** dialog box. The node-editing dialog box can be pinned firmly on the EuroCUT working area using the ***Pin*** icon When the ***Pin*** icon is activated the pin turns into the symbol and the ***OK*** button becomes an ***Assign*** button.

Note: *When you have pinned the* ***Node Editing*** *and* ***Object Attributes...*** *boxes firmly on the working area, you can switch back and forth between the boxes by hitting the SPACE BAR.*

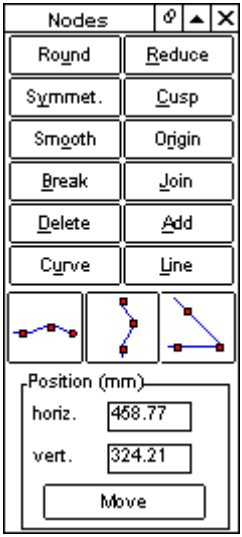


Fig. 7: *Node Editing* Dialog Box

Note: *To edit the nodes in a text string, you first have to transform the nodes into an image using the* ***Text to Curves*** *command, otherwise the text string will be displayed with dotted blue lines.*

You can recall the most frequently node editing commands via the right mouse button.
The commands on the right mouse button change depending on whether one or more nodes are selected.
If two nodes are selected, the right mouse menu appears as follows:

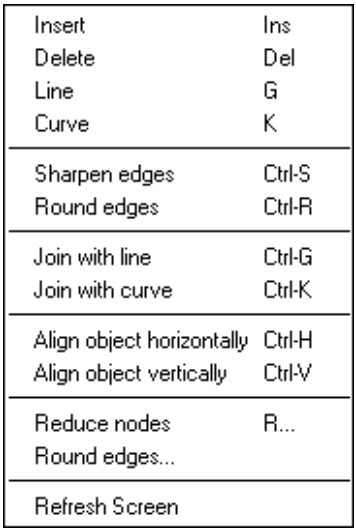


Fig. 8: The Right Mouse Menu With Two Nodes Selected

If only one node is selected, the following menu items are available:

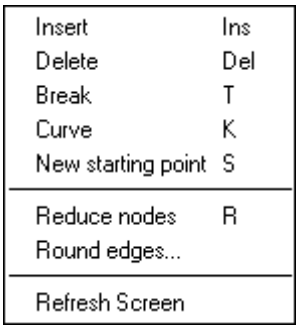


Fig. 9: The Right Mouse Menu With One Node Selected

Note: *You can select several nodes by holding down the* SHIFT *key and clicking on the nodes you wish to select one after another.*

- **Round Nodes (inside/outside)**

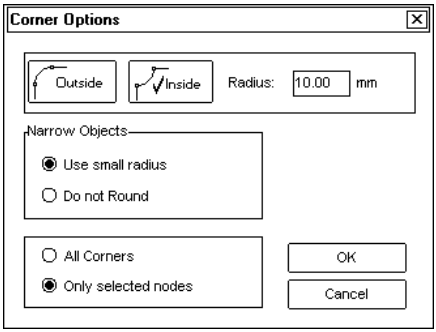


Fig. 10: Rounding nodes

The following settings are available to you in the ***Round*** dialog:

- **Round outside corners**

When this button is activated, the selected nodes/corners or the whole object will be rounded outside by the radius indicated, depending on which option is chosen.

- **Round inside corners**

When this button is activated, the selected nodes/corners or the whole object will be rounded inside by the radius indicated, depending on which option is chosen.

The radius for rounding the nodes can be specified in the box on the right next to the button mentioned above.
The option ***For Narrow Objects*** is located below the ***Round*** button.

Two options are available to you.

If you select ***Use Small Radius,*** EuroCUT calculates the appropriate radius for rounding the nodes on this narrow object.

If you select ***Do not round***, the nodes on narrow objects are not rounded.

- **Reduce Nodes**

When this command is activated, any superfluous nodes will be removed, i.e. the nodes which do not affect the shape of the curve are removed.

Note: *The* ***Reduce*** *function always affects the* ***whole*** *object.*

- **Symmetrical**

Y

This command is used to make the tangents of any point perfectly symmetrical, i.e. the two tangents of any curve point will form a straight line **and** be of equal length. When moving such a node, this symmetry will not be affected in any way.

- **Cusp**

P

The **Cusp** command cancels the symmetry of the tangents, thus allowing you to change them individually. The shape of the curve is not directly affected by the initial selection of this option.

- **Smooth**

Ä

This option is used to smooth points in a curve or wherever a straight line turns into a curve. The tangents of these points are adjusted so that they form a straight line, thus creating a perfectly smooth curve or curve/straight-line transition for best possible output quality. The adjustment of the tangents is always kept to a minimum.

This feature is especially useful after moving a point on a curve. Because any move causes the tangents to lose their orientation to one another, the ***Smooth*** function must be used to readjust the tangents to form a straight line. Again, this is a very important editing feature in that it will determine the quality of your output when you send it to your plotter/cutter.

Note: *The* ***Smooth*** *option is not available when there are straight lines on both sides of the selected points. When two tangential points of a curve are moved, they are no longer symmetrically aligned in relation to each other. The* ***Smooth*** *command transforms them into a straight line again.*

- **Origin**

S

For routing applications it is important to be able to control the point at which the bit first plunges into the material. This option allows you to change the starting point of a selected contour, which is of particular importance for routing and engraving applications. For this type of cutting, it is important to be able to control the point at which the bit first plunges into the material. To change the starting point of a contour, double-click on the new starting point you have selected. Choose ***Origin*** in the node editing panel, and the selected point is turned into the new starting point. As such, it is displayed as a double square.

- **Break**

T

This command is used to break up or dissolve a single point into two separate points. Each of the new points will receive one of the tangents of the original point. When applied to a closed contour, this function will create two new points that become the starting points for two open contours.
Select the point you wish to break. Double-click on it to activate the node-editing panel. Click on ***Break***.

- **Join**

J

This function, which joins two points, is used primarily to close open contours. The points to be joined must be located at the end of a segment or contour. With the node-editing tool, select the first point. Then hold down the SHIFT key and select the second point, i.e. the point you wish to join with the first. Selected nodes are displayed with a black fill and the status bar shows you how many objects have been selected. Finally click on the ***Join*** button.

Note: *There is another option available for closing contours: the* ***Frame*** *function. With the left mouse button held down, draw a line linking the selected points. It is only possible to join two selected points when they are both at the ends of an open contour.*

- **Delete**

Ö/DEL

To remove or delete nodes from your contour, you have the following options:

-Select the point you wish to delete. Double-click on it and choose the ***Delete*** command in the node editing panel.

Or, more efficiently:

Select the point you wish to delete. Press the DELETE button on your keyboard.

When deleting an end-point of an open contour, the adjoining nodes will be connected with a curve, provided there was at least one curve on either side of the deleted point.

However, if there were no curves on either side of the deleted point (in other words, if you deleted a node on a straight line), the adjoining points will be connected with a straight line.

- **Add**

I/INS

This function is used to add additional points to a contour line. Use the node editing tool to double-click at the exact location on the line or curve where you wish to insert a point. Click on ***Add*** in the ***Node Editing*** panel that appears on the screen. A new point has now been added to your contour.

- **Curve**

K

This command is used to convert straight lines into tangential curves. Use the node-editing tool to select the line you wish to convert and double-click on it. Choose the ***Curve*** command in the node-editing panel and the straight line will be converted into a curve.

- **Line**

G

This command is used to convert curves into straight lines. Use the node-editing tool to select the curve you wish to convert and double-click on it. Choose the ***Line*** command in the node editing panel and the curve will be converted into a straight line. Note that all curve attributes will disappear when a curve is converted to a straight line.

- **Align**

V (vertical)

H (horizontal)

This function is used to vertically or horizontally align nodes or points. You must select at least two points to perform this task. With the node-editing tool, select the first point. Then hold down the SHIFT key and select the second point, i.e. the point you wish to align with the first one.
Double-click on the reference point, i.e. the point with which you want the other selected point(s) to be aligned. Now select either the horizontal or vertical ***Align*** icon in the node-editing panel.

- **Align Corners**

E

Aligning corners is a further possibility of aligning nodes or points. This function aligns nodes which are positioned almost vertically or horizontally in relation to the preceding and following nodes.

Aligning corners is a combination of horizontal and vertical alignment.
Right angles can be created very quíckly using this method.

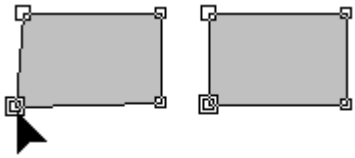


Fig. 11: Aligning Corners

Figure 11 shows how ***Align Corners*** is performed. The original state of the rectangle can be seen in the illustration on the left. Select the lower left corner and open the ***Node*** menu by double-clicking on the corner. The corner point will be aligned horizontally **and** vertically with its adjacent points. This creates a right angle, as illustrated in the diagram on the right.

- **Direct Input of Coordinates for Node Positions**

In the ***Position (mm)*** combobox you can position nodes by entering their X/Y coordinates. A distinction is made here between absolute and relative values.

- **Absolute Values**

When absolute values are entered the value is assigned to the ***selected*** node.

- **Relative Values (with SHIFT key)**

When relative values are entered, the selected node is moved in a horizontal or vertical direction by the amount specified in relation to the selected node, i.e. the coordinates entered are added to the original coordinates.

Procedure:
First enter the desired coordinates and then hold down the SHIFT key while you click the ***Move*** button.

• Horizontal/Vertical Restriction in Drawing Lines/Curves

Lines can be restricted vertically or horizontally by holding down the SHIFT key, i.e. it is only possible to move the line in one direction.

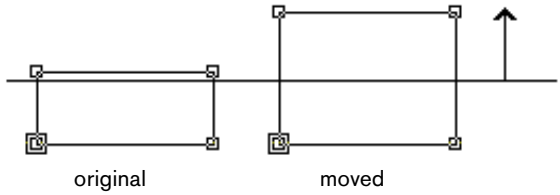


Fig. 12: Drawing Lines

When a curve is drawn, the curve is pulled out of shape. The degree of distortion depends on the selected starting point, as can be seen in Figure 13.

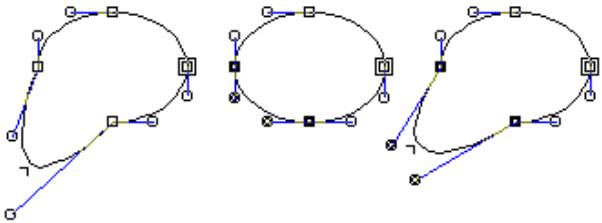


Fig. 13: Drawing Curves

Keys for node editing are also available on the keyboard.

The node attribute ***smooth*** is automatically saved when the current and following node form a curve.

Note: *The magnifying glass function can also be used in the node editing mode.*

• Align Corners

This command joins two nodes with two “smooth“ lines.
Any nodes situated between the two selected nodes will be deleted.

Strg + R

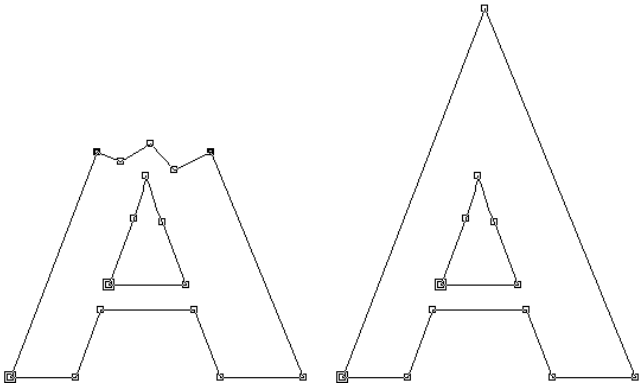
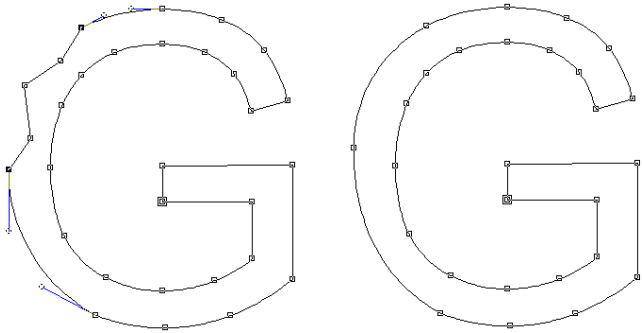


Fig. 14: Example of Aligning of Corners

This command joins two nodes with two “smooth“ curves. Any nodes situated between the two selected nodes will be deleted.

If one of the selected nodes is situated at a corner the original angle will be retained.

- **Round Corners**



STRG + G

Fig. 15: Example of Rounding Corners

It can be seen in the figure above that the left outside edge of the G needs modifying. To do this, select the nodes above and below the “fault“. If you activate the ***Round Corners*** command, the nodes situated between the selected nodes will be deleted and the two points joined with a curve.

You can see in the figure below that the selected points are situated on parallel lines. If this is the case, the selected nodes will be joined with a semi-circle. The nodes situated between the selected nodes are deleted.

- **Join With Straight Line**

This command joins the two nodes selected with a straight line. Any nodes situated between the selected nodes are deleted.

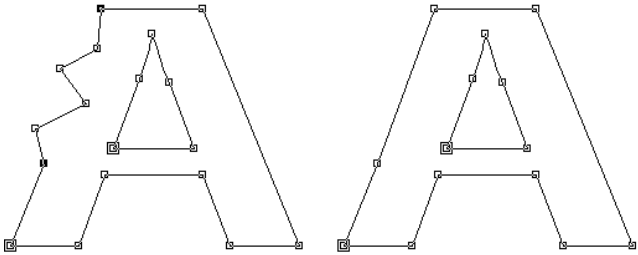


Fig. 16: Example of Joining Nodes with a Straight Line

- **Join With Curve**

The two selected nodes are joined with a curve.
Any nodes situated between the selected nodes will be deleted.

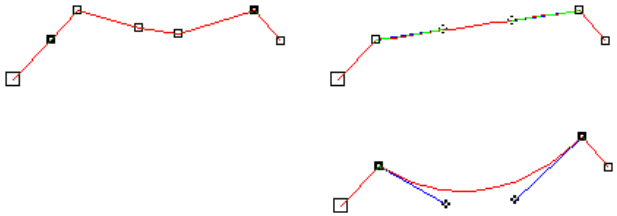


Fig. 17: Example of Joining Nodes with a Curve

- **Align Object Horizontally/Vertically**

The object in which the nodes are selected is aligned either horizontally or vertically.

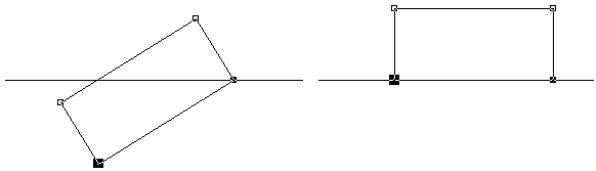


Fig. 18: Align Object Horizontally

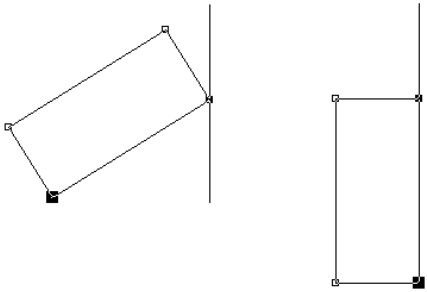


Fig. 19: Align Object Vertically

- **Reduce Nodes...**

When you activate this command, the Reduce Nodes dialog box appears where you can make the following settings:

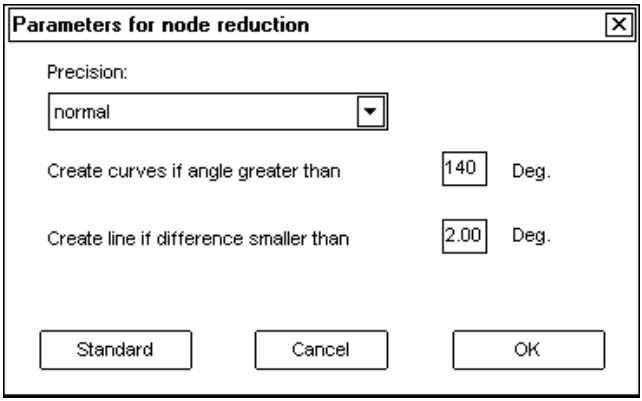


Fig. 20: Dialog Box for Setting the Accuracy of the Node Reduction

Accuracy

This value affects the conversion of lines into Bezier curves. The greater the deviation is, the smaller the number of curve commands that will be needed to recreate the original arc of the curve.

Create Curves With Angle Larger Than – X - Degrees

If the angle of the lines at one of the nodes is smaller than this value, the arc of the curve will be interrupted at this node.

Create Straight Line With Deviation Smaller Than – X – Degrees

If a curve is created with an arc lying within the tolerance value, it will be converted to a straight line.

- **Node Selection**

TAB	Select next node
TAB + SHIFT	Select next node additionally
BACK	Select previous node
BACK + SHIFT	Deselect most recently selected node

- **Interactive Rounding or Aligning of Corners**

If you click on the arc of a curve with the CTRL key held down, a node will be inserted at this place. This node serves to select the position of the rounding. When the second node is selected, you can align, round or perform any other node-editing command you wish.

2.2.3 The Zoom Tool

This function is used to *zoom in and out* on your desktop, working area or design.

Fig. 21: The *Zoom* Function Icon

When you click on the ***Zoom*** icon, a flyout box appears containing five additional icons.

Fig. 22: Flyout with 5 *Zoom* Functions

The icon with the plus sign is used to enlarge a selected area of your desktop. Using the framing function, draw a frame around the area you want to enlarge. You can repeat this procedure several times for further magnification. An acoustic signal will warn you when you have reached the limit and no further magnification is possible.

Note: *You can also activate this command by pressing F2 and the + (plus) key in the numeric keypad.*

The icon with minus sign is used to reduce a selected area of your desktop or working area.

Note: *You can also activate this command by pressing F3 and the - (minus) key in the numeric keypad.*

The icon depicting a sheet of paper symbol is used to view the working area in its entirety.

The icon depicting a monitor is used to display all objects in your working area EuroCUT will enlarge or reduce the objects to make just enough room for everything to fit on your screen.

The last icon depicting a magnifying glass is used to display all selected objects as large as possible.

Note: *If you hold down the SHIFT key while executing this command, only the selected objects will be enlarged to their optimal size.*

2.2.4 The Drawing Tools

1. 2. 3. 4. 5. 6. 7. 8.

Fig. 23: The Drawing Tools

1. Straight lines
2. Rectangles and squares
3. Circles and ellipses
4. Digitizing mode
5. Curves
5. Freehand drawing
6. Stars and multi-cornered shapes
7. Drill holes
8. Register marks

Note: *A detailed description of the* ***Drawing*** *tools is to be found in the* ***Reference Section****.*

2.2.5 The Text Editor

Fig. 24: The *Text Editor* Icon

When you click on the ***T*** icon in the toolbox, an arrow with a capital T appears on the screen. Use the tip of the arrow to select the point where you wish to insert a text string. Clicking on that point activates the ***Text Editor*** dialog box.

Note: *A text string consisting of several lines will be divided into separate lines when you quit the text editor. This makes it easier to work on and edit the text.*

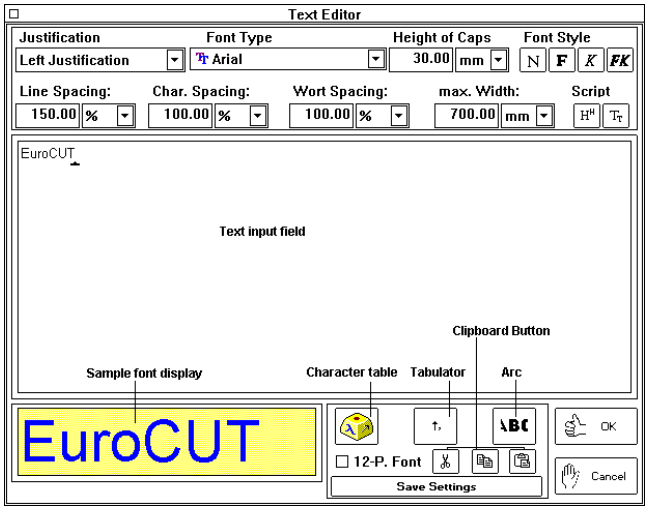


Fig. 25: The *Text Editor* Dialog Box

- **Justify**

This field allows you to choose the appropriate justification for your text string. A different selection is possible for each line of text. First select the line you wish to justify. Now display the list of available options and click on the type of justification you would like.

Note: *If you choose* ***Forced Block****, you must end each line of text by pressing the ENTER/RETURN key.*

Character spacing will be extended in such a way that each line, including the last, attains the maximum width you have selected. If you instead select **Block,** do **not** end the line with ENTER/ RETURN. This will the cause the words to wrap and the spacing to be extended so that the text (excluding the last line) will be both left and right justified.

Note: Adjust Height of Caps *enlarges or reduces the font size depending on the line width. After such a modification has been effected, the caps height is no longer displayed numerically; it can, however, be verified with the* ***Measuring*** *tool.*

- **Font**

This is where you choose the type of font you wish to use. First, select your text string either by highlighting the portion of text you want to edit (click at the starting point and highlight the appropriate text portion with the mouse button held down) or by pressing CTRL+A to select the entire text string. You can verify the choice of font in the sample font display.

Note: *You can select the entire text string by double-clicking in the text input field.*

- **Caps Height**

This field allows you to select a specific text height. The value entered in this field always applies to the capital letters of the font you have chosen. In the adjacent field, select the appropriate unit of measurement.

- **Font Style**

The font style can be chosen by selecting one of the four icons in the upper right-hand corner of the text editor dialog box; the choices are normal, **bold**, *italic* and ***bold italic***. It may be that not all four selections are available for any given font. The available options are always displayed in solid black while the rest are grayed out.

- **Line Spacing**

Line spacing indicates the distance between text base lines. The percentage value is based on the height of caps and is always calculated from the baseline of the selected text line (i.e. the line in which the cursor is located) to the preceding baseline.

- **Character Spacing**

Character spacing indicates the distance between individual characters in your text. A 100% value indicates the standard kerning value. Values below 100% will condense, values above 100% will extend the text line. Instead of the percentage value, you may also select various units of measurement.

- **Word Spacing**

This value defines the spacing between words in your text. The value can be entered in millimeters, centimeters, or as a percentage of the regular spacing.

- **Maximum Width**

This option allows you to set a maximum width for your text line. Once you have reached the end of the line as defined by the maximum, the text will roll over to the next line. When editing existing text, you may change the maximum width for the entire text or merely for one or more selected lines. Entering a smaller value than the previous maximum for any given line will cause the text to roll over sooner.

- **High / Low**

These two icons give you the option to place one or more characters higher or lower than the normal text string while also somewhat reducing their size.

The ***Special Character*** icon gives you access to many special characters or symbols that, unless you know their SHIFT+ NUMBER sequences, cannot easily be entered via the keyboard. To activate the ***Special Character*** window, click on the icon and the list of characters available for the font you have selected will appear.

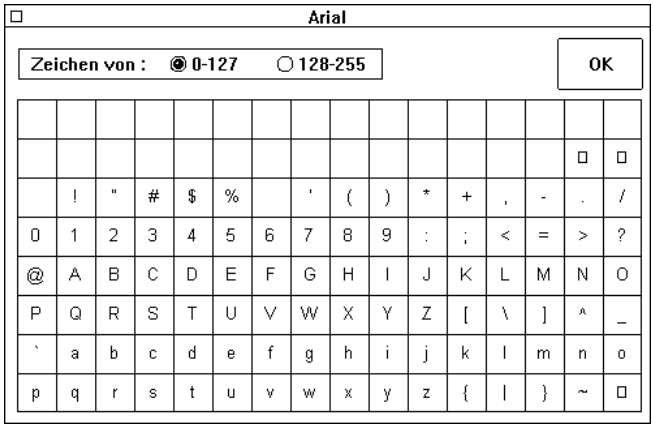


Fig. 26: First Half of the Special Characters (displayed in Arial font)

The left-hand option shows characters 0-127. They can also be accessed over the keyboard. The right-hand option shows characters 129-255. All characters can be transferred to the text editor by clicking on them once.

Only characters available for the particular font you are using will be displayed. The number of characters is generally an indication of the quality of the font.

The TAB icon next to the ***Special Character*** icon in the text editor dialog box allows you to set your own tabs for any line or block of text.

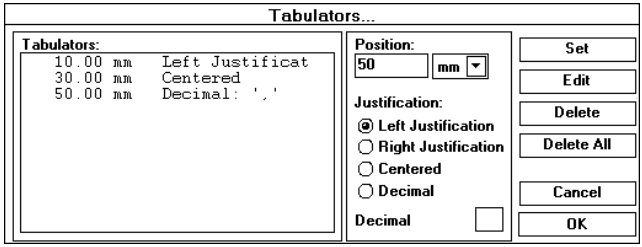


Fig. 27: *Tabulator* Dialog Box

In the window on the left, all currently set tabs are listed.
To set a new tab, simply enter a value for the exact position at which you would like to place it. Select the appropriate unit of measurement in the adjacent box and click on ***Set*** to implement the new tab.

Position indicates the exact distance from the left margin of your text.

Justification defines the justification of the text in relation to the tab, i.e. left-justified, right-justified, centered or on a decimal. When decimal justification is used, you can also determine where the word is to be separated.

Edit allows you to change the position of any previously set tab(s).

Delete removes any selected tab from the list.

The icon to the right of the ***Tabulator*** icon activates the ***Arc Text*** function.

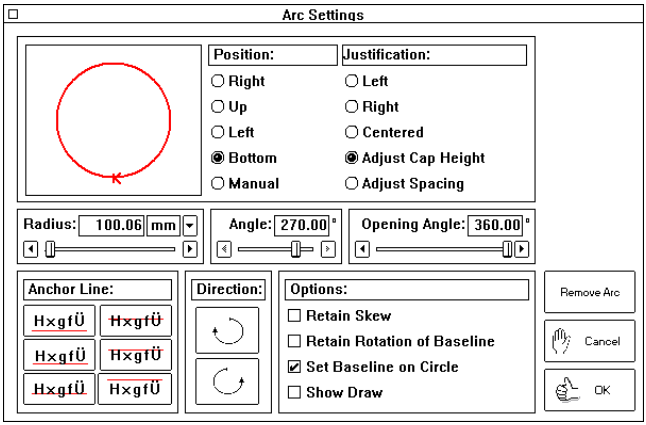


Fig. 28: *Arc Text* Dialog Box

In the upper left corner you will find the preview window.

The red arrow indicates the selected position of your text string on the circle as well as the length of the text.

- **Position**

In the box to the right of the preview window you can change the position of your text on the arc. You can choose between the options right, top, left, bottom or manual. Selecting ***Manual*** gives you the option to enter the exact angle at which your text will

begin. To do this, simply enter a new value in the ***Angle*** field below.

- **Justification**

This set of options allows you to specify how the text will be placed in relation to point you have defined under ***Position*** described above.

If you select ***Centered***, for example, the text will be centered around the previously defined point.

In the preview window you can view the ***Justification, Position*** and ***Length*** of the text.

Adjust Caps Height will automatically increase or decrease the height of your text proportionally to the size of the circle you have selected. The larger the circle you have chosen, the larger the letters and vice versa.

Adjust Spacing automatically adjusts the character spacing to make it uniform.

The ***Opening Angle*** field is only active if you have previously selected ***Adjust Spacing***. It gives you the option to manually adjust the spacing between each character

- **Radius**

This value defines the radius of the circle for the positioning of the text block.

- **Anchor Line**

The six selection boxes in this window allow you to choose the way in which your text will be placed on the circle.
The red line in each box represents the circle. To make your selection, simply click on the appropriate box.

- **Direction**

This field is used to select the direction in which your text will arc around the circle.
This option is also used to arc text inside a circle (use an angle of 180°).

- **Options**

Maintain Skew: If you previously skewed your text, this option will maintain the skew when you arc it.

Rotate Baseline: When you select this option, previously rotated characters will not be rotated on the circle; instead, they will maintain their rotation relative to a horizontal line even as they are being arced on the circle.

Set Baseline on Circle: This will make the circle line your baseline, i.e. the characters will actually be rotated on the circle line.

Show Circle: This option will display the circle (which would otherwise remain invisible) in your working area.
This will help you verify the selections you have made in the Settings dialog box.

Cancel Arc: By clicking on this button you can cancel all selections made and return the text to its previous form.

Note: *The most efficient way to use the* ***Arc Text*** *function is by setting up your right mouse button for immediate return to the text editor.*

You can do this in the ***Settings*** menu using ***Setup/Mouse***. By clicking twice on OK you can confirm the arc text which is drawn in your working area. Clicking on the right mouse button allows you to return to the text editor.

- **12-Point Font**

If you select the 12-point font box in the text editor, your text string will be displayed in a standard 12-point font. This feature is intended to make text editing more efficient, since the 12-point font is much easier to read.

3 clipboard functions let you exchange data with other programs.

The icon deletes the selected text or characters from the ***Text Entry*** field in the text editor and stores them in the Windows clipboard.

The icon generates an exact copy of the selected text and stores it in the Windows clipboard. The text is not removed from the ***Text Entry*** field

The icon restores previously cut or copied text from the Windows clipboard in the ***Text Entry*** field. The restored text is inserted immediately behind (to the left of) the cursor.
Save Settings stores all text editor selections you made as standard parameters which will be recalled whenever you open the text editor. This allows you to customize the text editor to meet your specific design requirements.

Note: *The text editor has a special function concerning the use of the SPACE BAR.*

You can insert a complete space between characters by hitting the SPACE BAR once, half a space by pressing CTRL+SPACE BAR, a quarter space by pressing SHIFT+SPACE BAR and an eighth of a space by pressing CTRL+SHIFT+SPACE BAR.

2.2.6 The *Fill* Function

This function allows you to fill objects with color or bitmaps. Their are four options available to you:

Fig. 29: The *Fill* Icons

- moves all fills

- generates fills

- adds bitmaps

- assigns layer color as fill, when the object has a gradient fill or a bitmap fill.

Delete Gradient Fills or Bitmap Fills

Fig. 30: The *Delete* Icon

When you click on this icon, gradient fills and bitmap fills are removed from all selected objects. There remain only the wireframes of the objects in the previously assigned layer color.

Example:

Original

black layer red layer

Lettering with gradient fills

EuroCUT Professional

Lettering after activation of the ***Delete*** button

EuroCUT Professional

Generate Gradient Fills

Fig. 31: The *Gradient Fill* Icon

Clicking on this icon opens the ***Gradient Fill*** dialog box, which lets you determine the appearance of the gradient fills of closed curves, text objects or combinations.

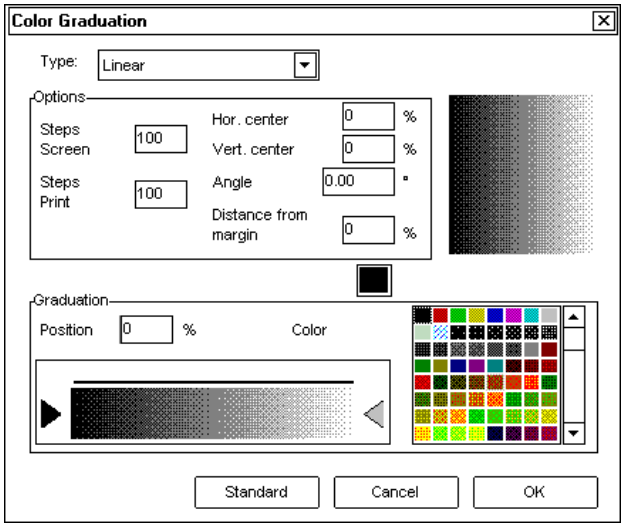


Fig. 32: The *Gradient Fill* Dialog Box

Determining the Gradient Fill

Enter the type of fill in the ***Type*** box. You can choose between ***Linear, Radial, Conical*** and ***Square***. The appearance of the selected type is displayed in the preview box on the upper right.

In the ***Steps Screen*** box, you can specify the number of gradient stripes in the display on the screen.

Steps Printout specifies the corresponding number of gradient stripes for output on a printer.

The ***Horizontal Center*** and ***Vertical Center*** boxes allow you to determine the center of the gradient fill.

Note: *These boxes are not active with the* ***Linear*** *type of fill.*

If you enter 0%, the center of the fill exactly coincides with that of the filled object.
The center can be moved to the right or left by 100% of the object width or upwards or downwards by 100% of the object height.
You can also determine the starting point with the mouse. To do this, move the mouse cursor over the preview box and click with the left mouse button on the point which you wish to be the starting point.
The ***Angle*** box determines if the shape of the fill stripes is ***linear***, ***conical*** or ***square***. When ***Linear*** is selected, you can also determine the angle of the fill using the preview window. Click on any point in the window. Keep the mouse button held down and move the mouse. A line with its starting point anchored down appears and follows the movements of the mouse. After you release the mouse button, the angles determined by the line will be saved.

Note: *The size of the margin can only be changed with* ***linear*** *and* ***square*** *fills. The entered value - between 0% and 45% - specifies the position of the first and last colors in relation to the center of the fill.*

Determining the Initial Color

The ***Gradient*** box allows you to determine the initial and final colors and also the positions and colors of any intermediate steps. The bar between the two triangles, the color gradient bar, displays the color gradation.
To determine the initial color, click on the left-hand triangle.

To change the color, there are two possibilities available.
If you double-click on the ***Color*** box on the left of the color palette, the ***Color Selection*** dialog box appears.

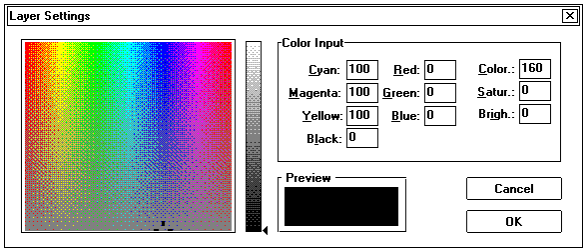


Fig. 33: The *Color Selection* Dialog Box

The starting color can be changed using this window.

In the color palette on the left side of the window there are 256 predefined colors available to you. You can select a color by simply clicking on the desired color with the left mouse button. Further colors can be made visible by using the scroll bar to the right of the color palette. You can select one of the colors for the fill by simple clicking on the appropriate field.

To modify a color, double-click on the field in question. Then the ***Color Selection*** dialog box described above appears so that you can perform the change..

You can select a new color from the color palette on the right of the ***Color Selection*** dialog box. If the color you want is not visible, use the scroll bar to made it appear. You can specify the color as starting color by simply clicking on the field in question.

If you double-click on the desired color box, this will reopen the ***Color Selection*** dialog box so that you can choose the color. The selected color is displayed in the ***Color*** box next to the palette.

Selecting the Target Color and Further Color Gradations

To specify the target or final color in the fill, first click on the triangle on the right side of the color gradient bar.
Now you can select a new color in the manner described above. Further color gradations can be added by double-clicking on the bar above the gradient bar.

A small triangle showing the position of the color in the fill is displayed at the selected position. The exact position is entered as a percentage in the ***Position*** box.

The position can be modified by moving the triangle or entering the desired percentage in the ***Position*** box. To position the color as you wish, first select the triangle which points to the position in question. Then you can specify a new color in the ways described above.
If you wish to delete one color gradation in the fill, click on the triangle representing it. Then press the DEL key.
The triangle will disappear from the bar and the color is no longer included in the fill.

Note*: It is not possible to delete the starting and target colors in a fill.*

Generating Bitmap Fills

Fig. 40: The *Bitmap Fill* Icon

This command is used to open the ***Bitmap Fill*** dialog box, which allows you to fill your objects with bitmaps.

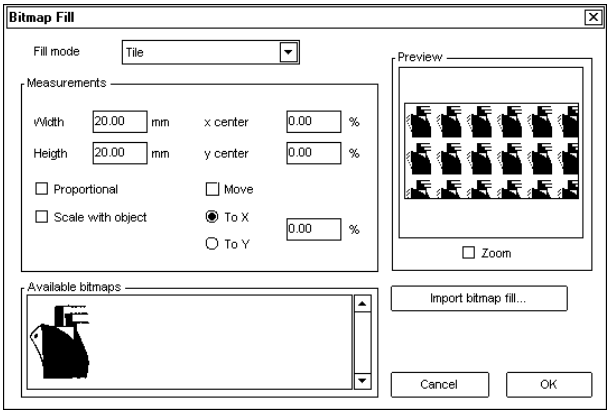


Fig. 41: The *Bitmap Fill* Dialog Box

Selecting a Bitmap Fill

First you must determine the bitmap to be used to fill the selected object. Three possibilities are available to you:

1. Scan in a New Bitmap Fill
Scan in the image to be used as a bitmap fill using the EuroCUT Twain interface (***Tools*** menu / menu item ***Scan***).

Open the ***Bitmap Fill*** dialog box.

The selected bitmap will be displayed in the preview window and also appears in the box headed

Available Bitmaps.
Make your settings and click on ***OK*** to confirm.
If the result is not to your satisfaction, you have the possibility to "detach" the bitmap and restore the scanned in image to its original state.

To restore the original image, choose the menu item ***Detach Bitmap*** in the ***Edit*** menu.

2. Import New Bitmap Fill

To select a new bitmap as fill, click on ***Import Bitmap Fill***. A ***File Selection*** dialog box will appear, which allows you to look for and select the desired bitmap.
The selected bitmap will then be displayed in the preview window and also appears in the bar with the available bitmaps in the lower left of the dialog.

3. Add Used Bitmap Fill
If you wish to make use of a bitmap fill which has already been used, select the desired bitmap from the list of available bitmaps by simply clicking on it with the mouse.
To make bitmaps not displayed appear, you can use the scroll bar in the lower right part of the screen.

Choose the type of bitmap fill you want in the ***Fill Mode*** box. The possibilities are ***Tile, Seamless Tile***, ***Adapt*** and ***Object Size***.

Tile

The ***Tile*** command fills the object with tiles drawn next to and below each other from the selected bitmap fill.
The width and height of a single tile can be specified in the appropriate boxes in the measurements group.
Tick the ***Proportional*** box to ensure that, when either the height or width is modified, the other value is also adjusted proportionally to avoid the bitmap being distorted.

If you activate ***Scale with Object***, the measurements of the tiles will be automatically adjusted in the case of a distortion.

Tiling normally starts in the upper left corner of the object. With the aid of the ***X Position*** and ***Y Position*** boxes you have the possibility of changing the starting point. Enter a negative value between 0% and 100% to move the tile to the left or right.
If you enter a positive value between 0% and 100% the center of the first tile will be moved either to the right or downwards.
If you select ***Move,*** you can move the tiles within the rows. ***To X*** and ***To Y*** allow you to specify if you wish to move the tiles in a horizontal or vertical direction. You can enter the size of the move in the box on the right as a percentage of either the tile width or height.

Seamless Tile

Seamless Tile is basically the same as ***Tile***. The only difference is the way the tiles are represented.
With seamless tiling the squares are all drawn with exactly the same measurements. This produces a more even picture especially with patterns.
The drawback of this method is that the position of the tiles can vary when the view is magnified.

Adapt

If you use the ***Adapt*** command the bitmap is only drawn once in the object. The preview window displays the exacts proportions of the bitmap and the object..

In the ***Width*** and ***Height*** boxes you can specify how large the bitmap fill is to be.
In the ***X Center*** and ***Y Center*** boxes you can determine how far the center of the bitmap is from the center of the object as a percentage.
You can also specify this position using the preview window. Click on the bitmap in the preview window and hold down the mouse button.
You can then position the image by moving the mouse. When you release the mouse button, the image will remain in the selected position.

Object Size

This command adapts the bitmap exactly to the contours of the object. The width and height of the object are calculated so that the entire area of the object is filled.

2.2.7 The *Print* Command

Fig. 42: The *Print* Icon

The following sections describe the various functions of the EuroCUT ***Print*** dialog box in detail.

Open the EuroCUT ***Print*** dialog box by selecting ***Print*** in the ***File*** menu, using the shortcut CTRL+P on the keyboard or clicking on

the icon in the tool box.

The following window opens:

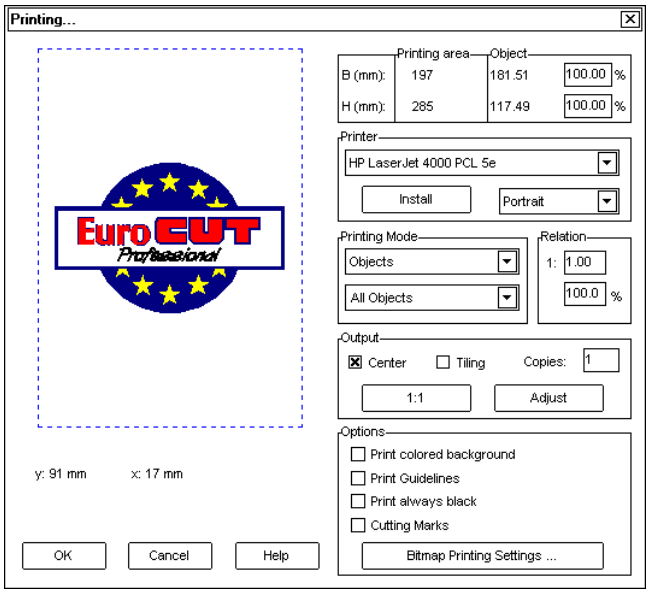


Fig. 43: The EuroCUT *Print* Dialog Box

In the lower right part of the dialog you will find under ***Output*** the ***Tile*** option and the ***Adapt*** button.
The appearance of the ***Print*** dialog box changes depending on which button you have activated. When the ***Print*** dialog box is selected, the ***Adapt*** button is automatically activated, because

objects or graphics cannot be printed in formats exceeding the maximum output size of the printer being used.

The *Adapt* Command

The ***Adapt*** command let you specify the printable area. The values for the printable area are shown in the ***Print Area*** box located in the upper right part of the ***Print*** dialog box.

The Preview Window in the *Adapt* Mode

This window allows you to recheck your job before it is printed.

The ***Snap to Edge*** function permits you to position your objects quickly in the corners or at the edges of pages.

Tip: *If you want to turn off the* ***Snap to Edge*** *function, hold down the SHIFT key while you position your objects.*

The coordinates appearing below the preview window show the position of the upper left corner of the first object in the working area.

Mouse Functions in the Preview Window (*Adapt* Mode)

Clicking once with the ***right*** mouse button enlarges the preview window to its ***maximum*** size.
The size of the display depends on the screen resolution. (800*600, 1024*768,...).
If you click again with the ***right*** mouse button the original state is restored.
If you press and hold down the ***left*** mouse button, a dotted black frame appears around the objects to be printed.
This frame encompasses all objects to be found on the working area and corresponds to the print area.

Print Area and Object

In the upper right part of the ***Print*** dialog box you will find the items ***Printing Area*** and ***Object.***

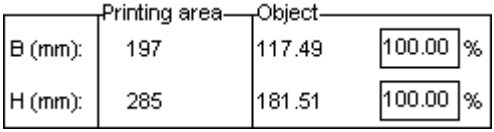


Fig. 44: Print Area and Object

Printing Area
This box shows the height and width of the specified printing area.

Object
This box displays the object(s) to be printed with its/their heights and widths.

Note: *The boxes for the percental enlargement of objects are not active in the* ***Adapt*** *mode.*

Below the ***Object Attributes...*** field, on the right side of the ***Print*** dialog, you will see the ***Printer*** field.

Printer

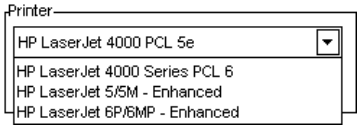


Fig. 45: Choice of Printer

If you open the combobox in the upper part of the dialog box, you will obtain a list of all the printers installed on your system. Select the printer you wish to use.
To make further settings for the printout, click on the ***Setup*** button.
The dialog which appears is the same as the menu item ***Attributes*** in the ***Printer File*** menu.

Note: The ***Print*** *dialog box opened by clicking the* ***Setup*** *button depends on the printer driver loaded and for this reason is not explained in greater detail here.*

You can specify the ***Page Format*** (upright/oblong) in the field to the right of the ***Setup*** button.

What is to be printed ?

In the field headed ***Print Mode*** there are two comboboxes which you can use to determine what is to be printed.
In the first box you can choose between ***Objects***, ***Objects with Worksheet*** and ***Job Info.***

Objects

All ***Objects*** in the working area will be printed.

Objects with Worksheet

All objects and also the worksheet (black frame) will be printed. The company name, the measurements of the working area and the proportional size of the printout will also be printed automatically below the black frame.

Job Info

If you click on this item, the information in ***Job Info*** will be printed and also all objects in the lower right part of the sheet will be printed on a reduced scale.

The following settings are available in the second box: ***All Objects, Selected Objects, Print Color Separations*** (print in layer order), ***Print Single Layers*** (colors).

All Objects

All objects on the working area will be printed.

Selected Objects

Only selected objects on the working area will be printed.

Printing Color-Separations

All objects of one color will be printed in the order displayed.

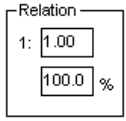
The color bar (layer order) in the second box contains all the colors (layers) which have been used in the working area. The colors will later be printed in this sequence. The darkest color is always printed first.

Printing of Single Colors (Layers)

The colors listed in the second box are those which have been used for the objects in the working area.
If, for example, there is only a black and a red object in the working area, there will be a choice of only two color bars (layers) available.

Relation

You can enter the relation in which the printout should be made in one of two boxes, either as a figure or a percentage.
The boxes are coupled, i.e. if you enter a figure, the equivalent percentage will automatically appear in the box provided and vice versa.



Examples of relation entries in figures with the corresponding percentages:

Relation 1 : 1 100.00 %
Relation 1 : 2 50.00 %
Relation 1 : 3 33.33 %
Relation 1 : 4 25.00 %

Center

If this option is activated, all objects on the working area will be centered.

Tile

If this option is selected, the **Print** dialog box appears in the **Tile** mode.

Number of Copies

In this box the number (max. 9999) of copies to be printed can be specified.
The ***Adapt*** and ***Tile*** buttons permit you to switch to and fro between these two modes.

1:1

When this button is activated, all objects on the working area will be displayed in their original size.

Adapt

When this button is activated, the objects in the working area are reduced so that they can be shown in their entirety in the preview window.

Print Colored Worksheet

If this option is selected, your worksheet will be printed with the specified background color.

Print Guidelines

If the job contains guidelines, these will also be printed.

Always Print Black

This option will automatically be activated when ***All Objects*** is selected in the first box and ***Print Color Separations*** (in layer sequence) or ***Print Single Colors*** (single layers) is selected in the second box.

This option is automatically activated when you select ***All Objects*** in the first box and ***Print Color Separations*** (in sequence of layers) or ***Print Single Colors*** in the second box. If you want to print the objects in the working area in color, the command must be deactivated.

Register/Crop Marks

This option will automatically be activated when ***All Objects*** is selected in the first box and ***Print Color Separations*** (in layer sequence) or ***Print Single Colors*** (single layers) is selected in the second box
If you do not want the register/crop marks to be printed, the ***Register/Crop Marks*** button must be deactivated beforehand.

The following table shows all possible combinations for comboboxes 1 and 2 and the possible choice of settings in the ***Adapt*** mode.

Possible combinations for Ccomboboxes 1 and 2 in the *Adjust* - Mode:

Combobox 1	Combobox 2	settings: X (activ), — (not active)							
		number of copies	adjust/ tile	ratio	center output	print guidelines	print colored background	always print black	cutting-marks
Objects	all objects	X	X	X	X	—	—	—	—
	selected objects	X	X	X	X	—	—	—	—
	color seperated printing	X	X	X	X	—	—	X	X
	print single layers layers	X	X	X	X	—	—	X	X
objects with worksheet	all objects	X	—	X	X	X	X	—	—
	selected objects	X	—	X	X	X	X	—	—
Job - Info	all objects	X	—	—	—	—	—	—	—

Fig. 46: Possible Settings in the *Adapt* Mode

Buttons in the *Print* Dialog Box

The *OK* Button

If you click on this button the settings made will be transmitted to the printing device.

The *Cancel* Button

You can use this button to quit the ***Print*** dialog.

The Print Bitmap Setup Button

Clicking on this button opens the following dialog box:

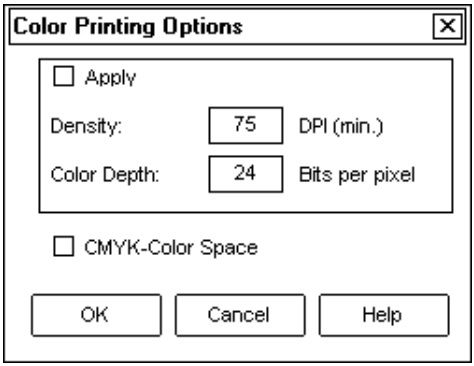


Fig. 47: The *Color Printing Options* Dialog Box

This dialog lets you determine the ***Print Density*** (dpi) and the ***Color Depth*** (bits per pixel) for the printing of bitmaps.
Use the ***Apply*** button to determine whether these values are to be used or not.

The Tile Mode

If you switch from the ***Adjust*** mode to the ***Tile*** mode, the following preview window appears:

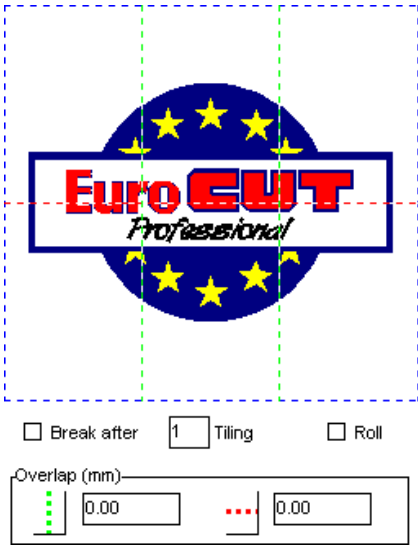


Fig. 48: The Preview Window in the Tile Mode

In the ***Tile*** mode all tiles are displayed. A tile is the part of an object which can be printed or cut on the device being addressed.

Break After indicates after which tile (enter the number of the tile) the output should be stopped. You can enter the desired horizontal/vertical intersection of the objects to be printed in the boxes under the menu item ***Overlap***.
If you print using ***Roll,*** complete stretches can be printed without any spaces between the single tiles.
You can only stop the printing of a complete stretch and not of the individual tiles.

Entering an intersection in the printing direction does not have any effect on this operation, as can also be seen from the display of the tile size.

Note: *After tiling the dialog will not automatically be closed, as it is useful to be able to compare the preview directly with output. This also allows you reprint a particular tile immediately.*

Mouse Functions in the Preview Window (*Tile* Mode)

You can enlarge the tiling view to the size of the screen by clicking once with the right mouse button on the tile preview window. A second click with the right mouse button will restore the original state.
Double-clicking with the left mouse button on a tile deactivates the tile, i.e. it is not printed.
If you double-click with the left mouse button while holding down the CTRL key, the tiling will be inverted, i.e. the tiles which were previously deactivated will be activated (printed) and the tiles which were activated will be deactivated (not printed).

The objects can be moved within the preview window using the mouse. The ***Snap to Edge*** function enables you to position your objects easily at the edge of the window. You can turn off the ***Snap to Edge*** function by pressing the SHIFT key.

Example of Printing in the Tile Mode

In the following example, the various functions, shortcuts, etc. in the ***Tile*** mode are explained again in detail.

The ***Tile*** mode offers you the possibility of printing in any size, i.e. any image, regardless of its size, can be printed out on the printer connected to your system.
To print your image, you do ***not*** require a printer for printing A2, A1, A0 or even large formats.

How can this be done*?*

The image to be printed is divided into as many partitions (tiles) as necessary to be able to print it on the printer connected to your system. .
The number of tiles necessary depends on the size of the image to be printed and the output format (A3, A2, etc.) which has been specified.
You can determine the output format using the ***Setup*** button in the EuroCUT ***Print*** dialog box. The format depends on the printer which is connected to your system.

Load any graphic you like to EuroCUT Professional and open the ***Print*** dialog box, either by clicking ***Print*** in the ***File*** menu, by pressing CTRL+P on the keyboard or by using the button in the toolbox.

The EuroCUT ***Print*** dialog box will be opened in the ***Adapt*** mode.
Activate the **Tile** mode by clicking the appropriate button.

The ***Print*** dialog box appears as follows:

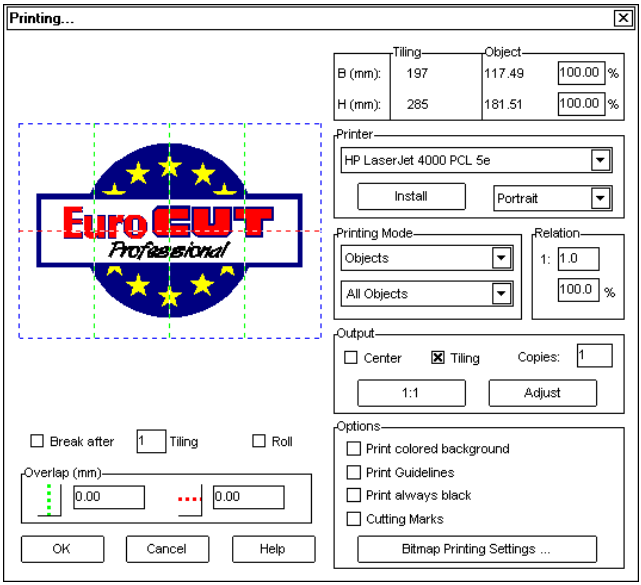


Fig. 49: The *Print* Dialog Box in the *Tile* Mode

In the upper right corner of the dialog box you will see two fields, ***Tile*** and ***Object***. The ***Tile*** field corresponds to the ***Printing Area*** box in the ***Adapt*** mode. The other fields in the right half of the ***Print*** dialog box behave in the same manner as in the ***Adapt*** mode.

In Figure 49 you can see the preview window in the ***Tile*** mode.

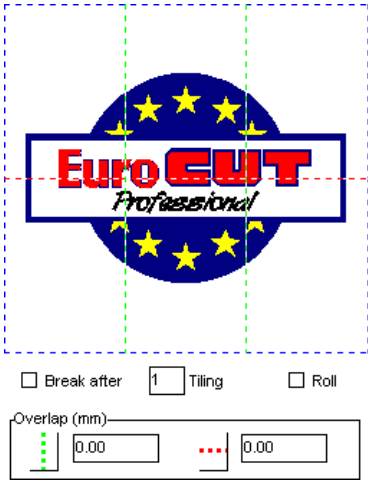


Fig. 50: The *Preview* Window in the *Tile* Mode

The preview window in the ***Tile*** mode shows all the tiles which are required so as to be able to print out the complete image.
Eight pages, for instance, are required to be able to print out the image in the example.
A change in the output format always necessitates an adjustment in the number of tiles.

Beneath the preview window you will find the fields ***Break After,*** ***Tiling*** and ***Roll***, which are explained on page 46 of the manual.

Vertical and Horizontal Overlap

The number of tiles increases depending on the number of vertical or horizontal overlaps which you have specified.

This is illustrated by the following example:

Figure 51 shows two tiles to be printed without any overlap.

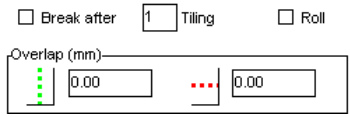


Fig. 51: Two Tiles without Overlap

Fig. 52: Four Tiles with Overlap

Figure 52 shows that the number of tiles increases when you use an overlap.

Activated and Deactivated Tiles

An ***active*** tile means a tile which is ***not*** marked with an ***X,*** whereas deactivated tiles are always marked with an ***X***.

Fig. 53: Deactivated Tile

Tiles can be deactivated or activated by double-clicking on them with the left mouse button, i.e. a tile is deactivated with a double click. A further double click will reactivate it.

You can see from Figure 53 that tile number 4 is marked with an ***X.*** This tile has been deactivated and will not be printed.
In the ***Tile*** mode you have a further possibility besides activating or deactivating single tiles.

If you hold down the CTRL key while double-clicking on the desired tile with the left mouse button, all tiles, except the one on which the mouse cursor is positioned, will be deactivated.

Figures 54 and 55 illustrate this.

Fig. 54: Six Tiles Active (Mouse Cursor is on Tile 4)

Fig. 55: Tiles 1, 2, 3, 5 and 6 Deactivated, Tile 4 Activated

Advantage of deactivating tiles:
When your objects are arranged, tiles without objects (empty tiles) may be created, which would result in a blank page being printed.

2.2.8 The Cutting Command

This command allows you to activate the module for cutting and drawing your job data.

2.2.8.1 The Cutting Dialog Box

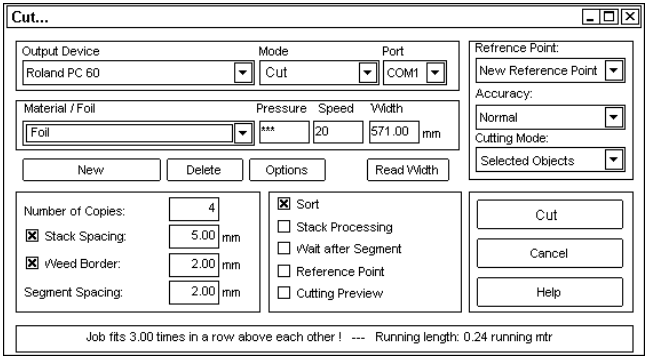


Fig. 56: The EuroCUT Cutting Dialog Box

In the box titled ***Plotter/Driver*** select the device that is connected to your ***serial*** port.

Why Use a Serial Plotter Drive ?

The serial RS 232 port is the link for data exchange between the cutting plotter and the so-called host computer.
The host computer calculates the necessary plotting data decentrally.
Two-way or ***bidirectional communication*** takes place between the host computer and the cutting plotter via a hardware handshake. There is a separate data lead for this handshake in the original cable supplied by the plotter manufacturer. The centronics port, i.e. the parallel (printer) port, only permits one-way or unidirectional communication between the host computer and plotter.
The cutting plotter can receive, but not cut, data using this port. Thus, when using this port, it not possible to specify the vinyl width, vary the stabbing pressure or reduce the cutting speed. Only one port at a time can be active, in this case the plotter, as it receives the data first.
Besides this purely technical difference, there is another important reason, which is the different distribution of resources with computers using MS Windows 3.xx.

Whereas serial drive lets you go on working during plotting, the computer is blocked all the time during plotting, when parallel drive is used.
In this case serial drive means higher productivity.

In the ***Mode*** box, select whether you want to draw or cut with your device.

Under ***Port*** select the port to which your cutting plotter is connected. This is usually COM2.
In this box you can also choose ***File***. This selection allows you to send the output data to a file specified by you and the data will be saved on your hard drive.

In the boxes ***Material/Vinyl***, ***Pressure, Speed/Velocity*** and ***Width*** you can enter specific values for the material you are using. This values have to be entered individually, as they depend on the material and the machine you are using.

The range of values are described in your plotter manual.
For example, the maximum speed is 60 cm/sec, i.e. 60 should be entered under ***Speed/Velocity***. Other plotter manufacturers use mm/sec as unit of measurement. In this case a three-digit figure has to be entered, e.g. 150.

To install a new set of material data in the ***material databank***, proceed as follows:
Click with the left mouse button on the ***New*** button below the ***Material/Vinyl*** box.
Enter the description of the material, e.g. Mactac, 3M, PMF, paper, etc. and specify its attributes regarding pressure, speed and width.
If you keep the SHIFT key pressed down while you click on the buttons, the current set of data will be saved as a new set of data.

This is useful when you only want to make small changes, such as different pressure, in the current entries.

You can save the data by clicking ***Save.***
The ***Delete*** button gives you the possibility of deleting individual sets of data again.

Note: *The settings in this dialog box will be automatically saved when the* ***Cut/Draw*** *button is activated.*

The ***Options*** button lets you set routing parameters and cannot be activated when you are using the cutting plotter.

With a lot of cutting plotters the ***Read Back*** button indicates the height of the plottable area so that the value for width does not have to be entered manually.
If you are using a device which does not offer this option, no value or a zero will be indicated.

In the ***Number of Copies*** box you can specify how often the selected objects are to be cut. After cutting, this value will be automatically reset to 1.

Stack Offset lets you define whether the copies are to be stacked vertically. This option can only be activated if it is possible to cut the selected object more than once on top of each other.

In the stack preview the first object will be displayed in its "normal" state. Every further object in the stack will be shown with a black square containing an X.

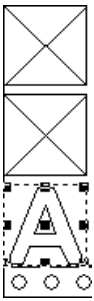


Fig. 57: Objects in the Stack Preview

Note: *When this option is selected, the lower part of the cutting dialog shows how often the images in the job will fit on top of each other and how many meters of vinyl will be needed.*

Weeding Frame allows you to specify whether a rectangle will be cut around the plot and at what distance so as to make it easier to strip or weed the vinyl.

With ***Segment Offset*** you can specify the horizontal distance between single segments.

If you select the ***Sort*** function, all objects located on the working area will be sorted in X direction when they are cut.

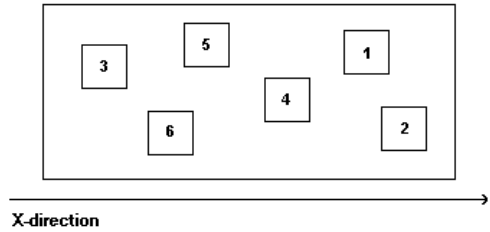


Fig. 58: The *Sort* Function in the *Cutting* Dialog Box

In Figure 58 you can see 6 objects which have been created in numerical order.

First object 1 was created, then object 2, etc. If the ***Sort*** function is not active, first object 1, then object 2, etc. will be cut, i.e. long distances will have to be covered when cutting. This can cause the vinyl to become displaced and takes too much time.

If ***Sort*** is active, first object 3, then 6, then 5, etc. will be cut. With this variation, the plotter covers the shortest distance possible. If the ***Stack Processing*** option is activated, all the jobs will be processed one after another without any break.

Note: *The* ***Cutter*** *symbol is not active when this option is selected.*

If your image is too big for cutting, EuroCUT will divide it into as many segments as are necessary for it to be cut in its entirety.

If you select the option ***Wait after Segment*** the cutting procedure will be interrupted after each segment and the vinyl can be repositioned if necessary.

Note: *This function is not suitable for plotters which have a small cutting width or for flatbed plotters.*

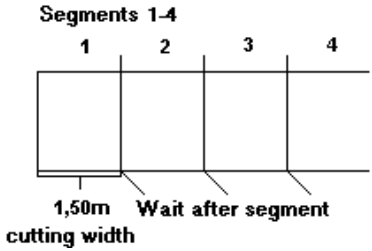


Fig. 59: Example of Segmentation (Cutting Width 1.50m/59 ins)

The physical zero point (0/0) of the plotter or router can be set using the ***Sheet Origin*** function.

If this function is turned off, EuroCUT automatically chooses the physical zero point as the starting point for cutting or routing.

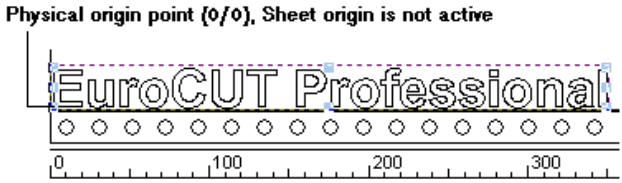


Fig. 60: Sheet Origin not Active

If ***Sheet Origin*** is activated, the physical zero point is moved by the amount of the offset coordinates of the point of reference.

The coordinates of the point of reference correspond to the position of the lower left corner of the object to be cut on the EuroCUT working area.

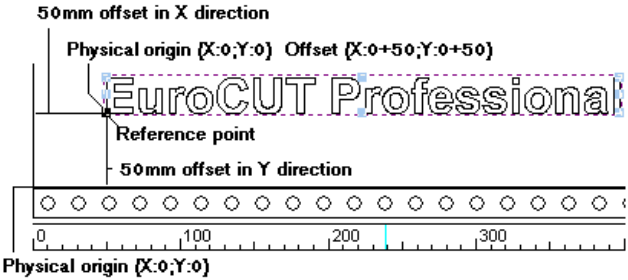


Fig. 61: Sheet Origin Active

You can turn the cutting preview on and off using the ***Cutting Preview*** option, if you have previously activated this option in the plotter setup (***Settings*** menu, menu item ***Basic Settings***).

Note: *If the* ***Cutting Preview*** *option has not been activated in the plotter setup, this box appears with a gray background.*

2.2.8.2 The Cutting Preview Window

The ***Cutting Preview*** window is automatically opened when you click the ***Cut*** button.

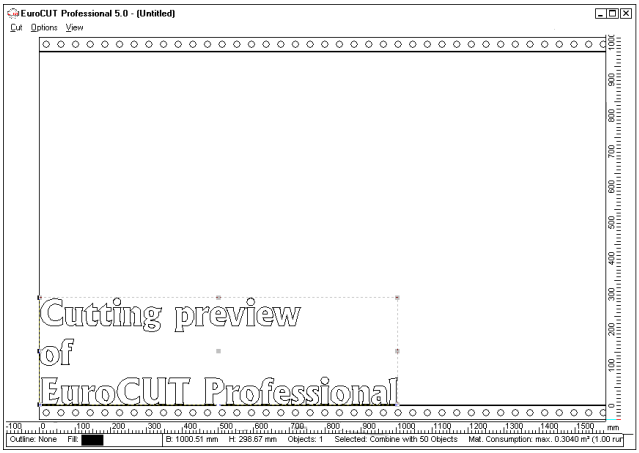


Fig. 62: The *Cutting Preview* Window in the EuroCUT *Cutting* Dialog

The various functions available to you in this dialog box are explained in detail in the following sections.

The following information about the job to be cut is shown in the ***Cutting Preview*** window status bar:
Wireframe, fill, width and height, group or combination and the maximum amount of vinyl used in square meters and continuous meters.

When the ***Cut*** menu is selected, the data are transmitted to the cutting device.

Note: *If the job to be cut is located to the left of, above or below the vinyl preview window and the* ***Cut*** *menu is activated, you will be automatically informed that the objects to be cut are outside the cutting area.*

The ESC key allows you to quit the ***Cutting Preview*** dialog box and return to the EuroCUT working area.

The *Options* Menu

The *Rotate Axis* Command

This command is used to rotate objects by 90°.

If this command is performed several times in succession, the selected image will be rotated 90° each time.

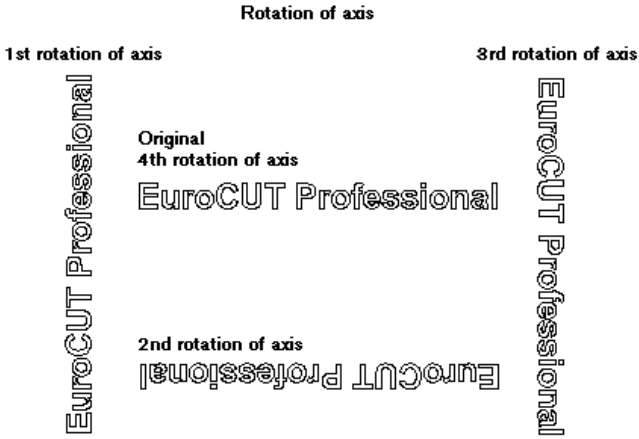


Fig. 63: Example of Axis Rotation

The *Horizontal (X) and Vertical (Y) Mirror* Command

The ***X Mirror*** command mirrors all selected objects on the horizontal axis. The ***Y Mirror*** command mirrors all selected objects on the vertical axis.

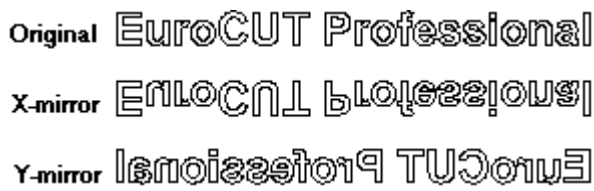


Fig. 64: Example of the *Mirror* Command

The *Optimize Output* Command

When you click this menu item, the dialog for optimizing the use of the vinyl opens.

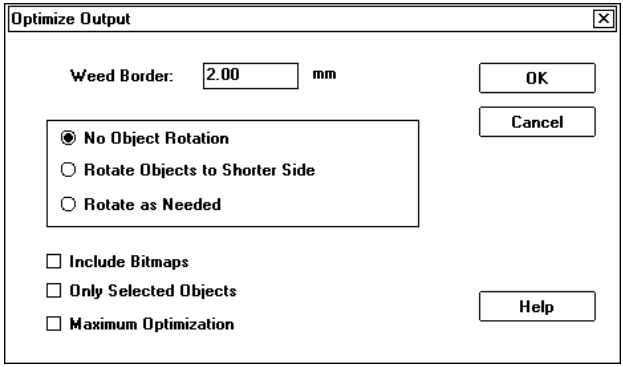


Fig. 65: Dialog for Optimizing Vinyl Use

This function ensures that all the objects are arranged in such a way that they take up as little space as possible on the vinyl.

The following options are available to you in this dialog:

Weed Border

If you check this option, a weed border will be cut automatically around your job to facilitate weeding. Enter a value for the distance at which you would like to have the weed border cut.

Rotate All Objects to the Shorter Side

All the objects are rotated so that the shorter side is at the bottom.

Rotate as Needed

During the optimizing of vinyl use process, the objects are rotated in such a way that they are in the best position for cutting. .

Include Bitmaps

Normally bitmaps and groups containing bitmaps are not optimized.

You can use this option if you wish to optimize bitmaps.

Only Selected Objects

Only selected objects will be optimized. This option can be used, for example, to optimize in layers (by colors).

Maximum Optimization

If you select this option, two further boxes will appear in the ***Vinyl Optimization*** dialog box.

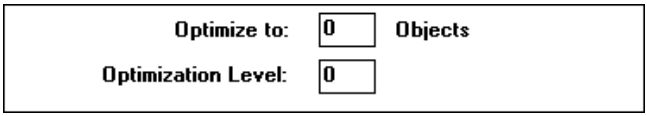


Fig. 66: Additional Fields in the *Maximum Optimization* Option

Maximum Optimization computes all the possible combinations from the ***End Optimization*** ... and ***Permutation Depth*** fields.

This calculation may take a long time if the values are large, as all the possible combinations from the two boxes are computed and compared.

Note: *Normally no more than 10-15 objects with a permutation depth of 6 at maximum should be set up. When optimization has taken place, one or more of the objects will always be rotated.*

The *Duplicate* Command

The ***Duplicate*** command rapidly duplicates the objects you wish to cut horizontally and vertically without your having to return to the EuroCUT Professional working area.
You can activate this menu item by clicking the ***Duplicate*** box.

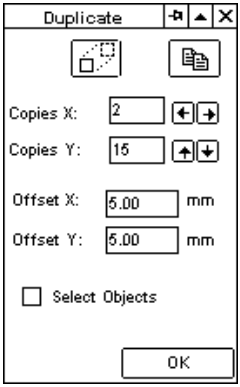


Fig. 67: The *Duplicate* Dialog Box

Number X

You can enter the number of horizontal duplicates in this box. The arrows to the right of the box indicate the direction (left/right) in which the objects are to be duplicated.

Number Y

You can enter the number of vertical duplicates in this box. The arrows to the right of the box indicate the direction (left/right) in which the objects are to be duplicated. .

X Offset

You can enter the distance you wish to have between the horizontal duplicates in this box.

Y Offset

You can enter the distance you wish to have between the vertical duplicates in this box.

If you click on ***Select Objects***, all objects will be automatically selected after they have been duplicated.

You can click on the ***Assign*** button to confirm your entries and import them to the preview window.

Using the button, you can go directly from the ***Duplicate*** box to the ***Position*** box.

Note: *You can also open the* ***Position*** *dialog box by clicking the menu item of the same name.*

The *Position* Command

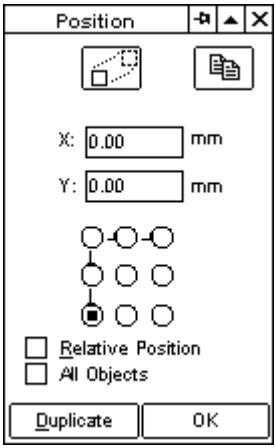


Fig. 68: The *Position* Dialog Box

You can position your objects as you wish on the vinyl using the ***Position*** dialog box.

In the ***X*** and ***Y*** boxes you can type the X and Y coordinates relatively and absolutely in relation to the point of reference.

Absolute and Relative Position

The absolute position means the actual position of the X and Y coordinates of the reference point of an object.

Explanation of Reference Points

When an object is selected, the reference points are displayed as blue squares. These squares correspond to the nine circles in the ***Position*** dialog box.
The center of the selected object is not marked as a reference point, as you can see from Figure 52.

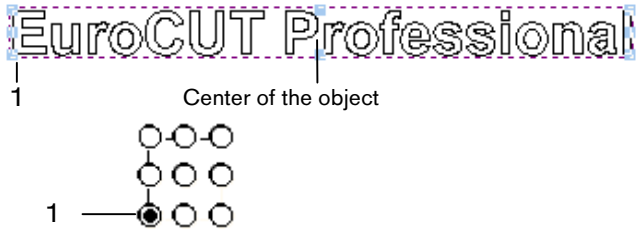


Fig. 69: Reference Points and Object Center

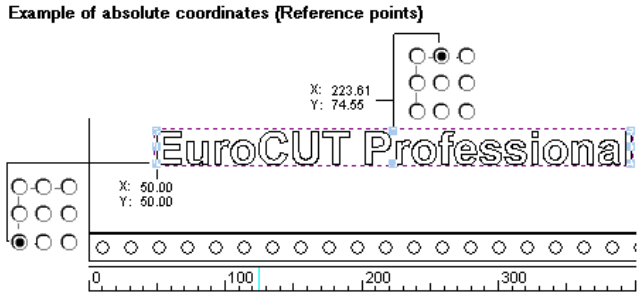


Fig. 70: Absolute Coordinates

If you click on ***Relative Position,*** the circles are displayed in gray, i.e. they are no longer active. Therefore you should set the desired reference point in relation to which the objects are to be moved relatively, before activating it.

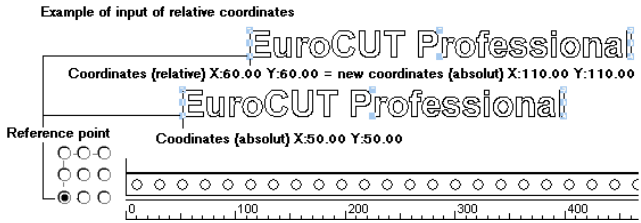


Fig. 71: Relative Coordinates

In the above example X and Y values of 50mm (1.96 ins) were entered for the absolute point of reference.

An offset of 60mm (2.36 ins) was chosen for X and Y as relative coordinates to this point, i.e. the point of reference was moved by 60mm (2.36 ins) horizontally and vertically. This gives a new absolute value of 110mm (4.33 ins) for the X and Y coordinates.

The *Recalculate* Command

This command closes the preview window and reopens the EuroCUT cutting dialog..

Original Display

Clicking on this menu item restores the cutting preview window to its original state, i.e. if the object in the preview window has, for example, been duplicated or repositioned, the preview now appears as it was after you had clicked on the ***Cut*** button.

The *View* Menu

The Material Width Command

Select this full screen command if you want the whole of the desktop to be displayed.

The *All Objects* Command

This command changes the display of the vector drawing in such a way that all objects can be seen on the screen.

The section is selected in such a way that the image is presented as large as possible with all objects visible.

Note*: If you keep the SHIFT key held down while performing this command, only the selected objects will be zoomed maximally.*

The Display Selected Objects Command

When this command is activated, only the selected objects on the working area will be displayed as large as possible. This command be performed using the shortcut SHIFT+F4.

The Total Area Command

This command displays a preview of the total vinyl area.
The size of the area displayed depends on the frame size (vinyl height * vinyl width) of the output device, e.g plotter.

If a driver for a roll plotter has been selected in the cutting dialog box, a vinyl length of 30m (ca. 100ft) is always shown.

If a driver for a table plotter, for example, has been in the cutting dialog box, the maximum width of this plotter (e.g. Wild TA 10 = 2m/66ins) is shown as vinyl length.

2.2.8.2.1 Weeding Lines

Example of Adding Weeding Lines

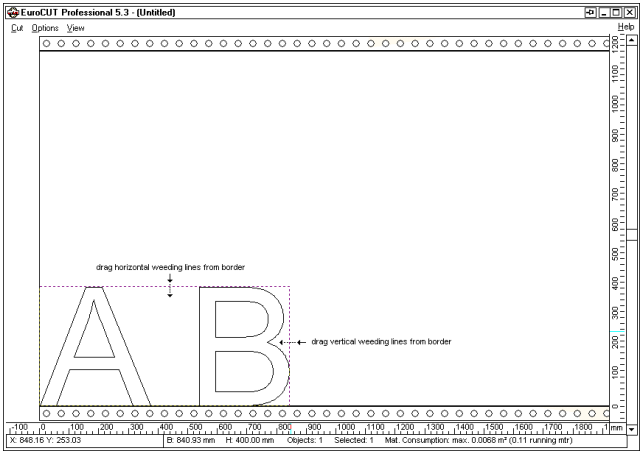

EuroCUT Professional 5.3 - (Untitled)
Cut Options View
Help
drag horizontal weeding lines from border
drag vertical weeding lines from border
X: 848.16 Y: 253.03
B: 840.93 mm H: 400.00 mm Objects: 1 Selected: 1 Mat. Consumption: max. 0.0068 m² (0.11 running mtr.)

Fig. 72: Adding Horizontal/Vertical Weeding Lines

It can be seen in the figure above that the objects to be cut are only surrounded by a weeding frame.
Especially when the objects are small, this is often insufficient for weeding them quickly and easily.
In the cutting preview you have three possibilities of adding horizontal/vertical weeding lines.

Note: *It is only possible to add weeding lines when this command is activated in the* ***Cutting*** *dialog box.*

1. Manual
Position the mouse cursor on the weeding frame surrounding the objects.
The mouse cursor turns into a double arrow. Now drag the horizontal/vertical segment line to the position where you wish to make a segment. Repeat the procedure until you have added all the segment lines you wish.

2. Via the *Options* Menu
Open the ***Options*** menu and select ***Horizontal Weeding Lines*** or ***Vertical Weeding Lines.***

The first weeding line is added horizontally or vertically in the centre of the object to be cut.

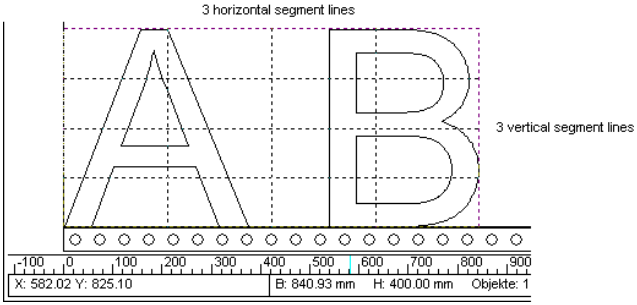


Fig. 73: Example of Adding Horizontal/Vertical Segment Lines Via the *Options* Menu

It can be seen in the figure above that if you keep on clicking one of these two menu items the segments created will be divided at the centre by further segment lines.

3. Via the Shortcuts h or v (see point 2)
In the figure below we can see how an object is prepared for cutting with segment lines.

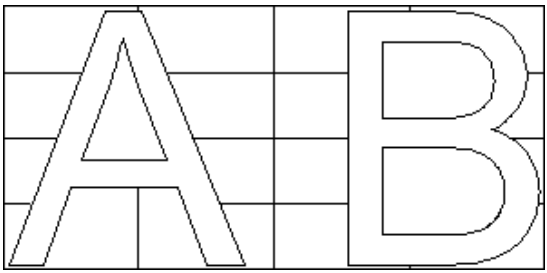


Fig. 74: What Is To Be Cut?

When the ***Cutting*** menu is activated, the data are transmitted to the output device for cutting.

Note: *If the job to be cut is situated to the left of, above or below the material preview when the* ***Cutting*** *menu is activated, you will automatically be informed that the objects to be cut are outside the cutting area.*

Press the ESC key to quit the Cutting Preview dialog box and return to the EuroCUT working area.

The *Options* Menu

The Rotate Axis Command

This command rotates your image 90°.

If you perform this command several times running, the selected image will be rotated 90° each time.

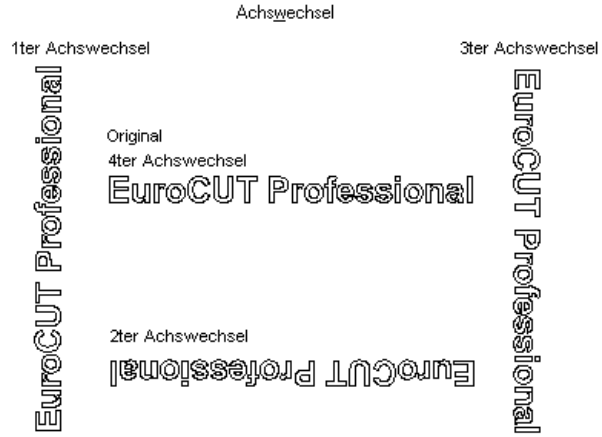


Fig. 75: Example of Axis Rotation

The X and Y Mirror Command

The **X Mirror** command mirrors all selected objects on the X axis.
The **Y Mirror** command mirrors all selected objects on the Y axis.

Fig. 76: Example of Mirroring

The *Optimize* Command

This command opens the dialog box for optimizing vinyl use.

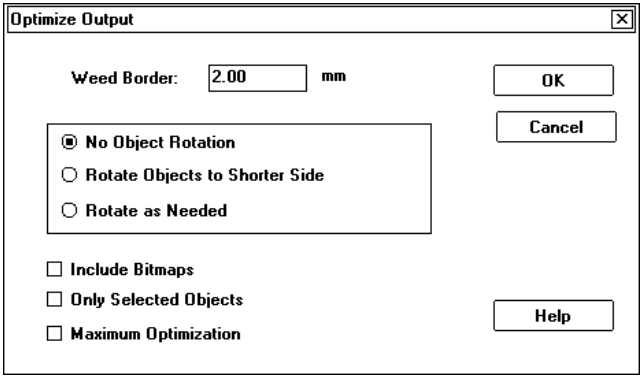


Fig. 77: Dialog Box for *Optimizing Use of Vinyl*

The ***Optimize Use of Vinyl*** command ensures that all objects are arranged in such a way that they take up as little space as possible on the vinyl.

The following options are available in this dialog box:

Weed Offset
The desired weed offset can be entered in this field.

Rotate All Objects on to the Shorter Side
This command rotates all objects so that the shorter side is at the bottom.

Rotate If Necessary
During optimization the objects are rotated in such a way that they can be processed in the best way possible.

Include Bitmaps
Bitmaps and groups containing bitmaps are not normally optimized.

This command can be used if you want bitmaps to be optimized.

Only Selected Objects

If this command is activated, only selected objects will be optimized. It can be used, for example, to optimize in layers (according to colour).

Maximal Optimization

When this command is activated, two more fields appear in the Optimize Use of Vinyl dialog box.

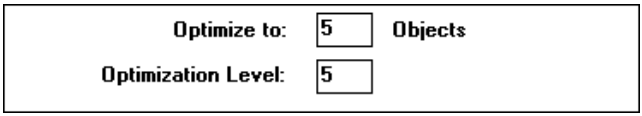


Fig. 78: Additional Fields with the *Maximal Optimization* Option

The ***Maximal Optimization*** option calculates all possible combinations resulting from the ***End Optimization...*** and ***Permutation Depth*** fields.

This calculation may take a long time if the values are large, as all the possible combinations from the two boxes are computed and compared.

Note: *Normally no more than 10-15 objects with a permutation depth of 6 at maximum should be set up. When optimization has taken place, one or more of the objects will always be rotated.*

The *Duplicate* Command

The ***Duplicate*** command rapidly duplicates the objects you wish to cut horizontally and vertically without your having to return to the EuroCUT Professional working area.
You can activate this menu item by clicking the ***Duplicate*** box.

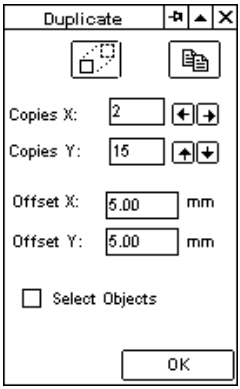


Fig. 79: The *Duplicate* Dialog Box

Number X

You can enter the number of horizontal duplicates in this box. The arrows to the right of the box indicate the direction (left/right) in which the objects are to be duplicated. .

Number Y

You can enter the number of vertical duplicates in this box. The arrows to the right of the box indicate the direction (left/right) in which the objects are to be duplicated. .

X Offset

You can enter the distance you wish to have between the horizontal duplicates in this box.

Y Offset

You can enter the distance you wish to have between the vertical duplicates in this box.

If you click on ***Select Objects***, all objects will be automatically selected after they have been duplicated.

You can click on the ***Assign*** button to confirm your entries and import them to the preview window.

Using the button, you can go directly from the ***Duplicate*** box to the ***Position*** box.

Note: *You can also open the* ***Position*** *dialog box by clicking the menu item of the same name.*

The *Position* Command

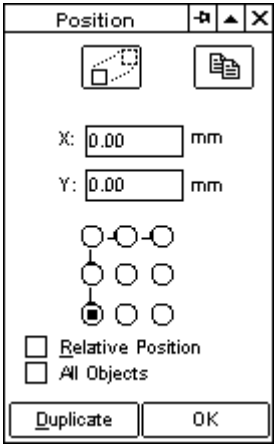


Fig. 80: The *Position* Dialog Box

You can position your objects as you wish on the vinyl using the ***Position*** dialog box.

In the ***X*** and ***Y*** boxes you can type the X and Y coordinates relatively and absolutely in relation to the point of reference.

Absolute and Relative Position

The absolute position means the actual position of the X and Y coordinates of the reference point of an object.

Explanation of Reference Points

When an object is selected, the reference points are displayed as blue squares. These squares correspond to the nine circles in the ***Position*** dialog box.
The center of the selected object is not marked as a reference point, as you can see from Figure 81.

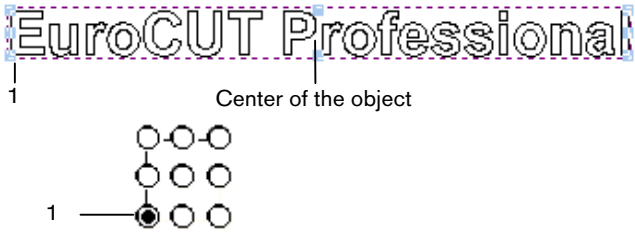


Fig. 81: Reference Points and Object Center

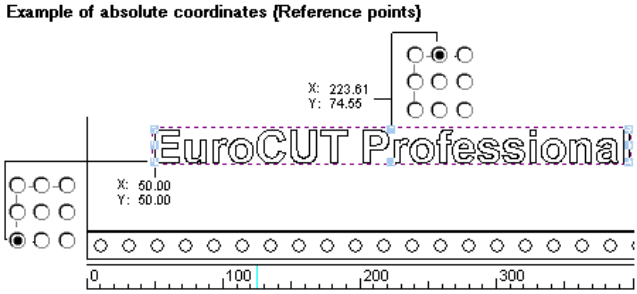


Fig. 82: Absolute Coordinates

If you click on ***Relative Position,*** the circles are displayed in gray, i.e. they are no longer active. Therefore you should set the desired reference point in relation to which the objects are to be moved relatively, before activating it.

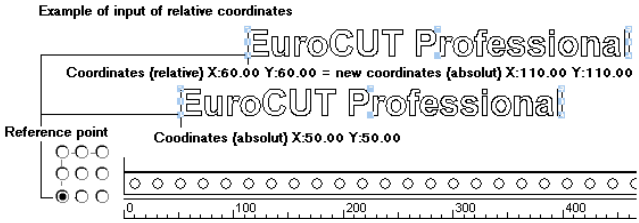


Fig. 83: Relative Coordinates

In the example (Fig. 83) X and Y values of 50mm (1.96 ins) were entered. The value of 60mm (2.36 ins) was entered for the relative coordinates to the reference point, i.e. the reference point was moved 60mm (2.36 ins) both horizontally and vertically. This results in a new absolute value of 110mm (4.33ins) for the X and Y coordinates.

The *Recalculate* Command

This command closes the preview window and reopens the EuroCUT cutting dialog.

Original Display

Clicking on this menu item restores the cutting preview window to its original state, i.e. if the object in the preview window has, for example, been duplicated or repositioned, the preview now appears as it was after you had clicked on the ***Cut*** button.

The *View* Menu in the Cutting Preview Window

The Material Width Command

Select this full screen command if you want the whole of the working area to be displayed.

The *All Objects* Command

This command changes the representation of the vector drawing in such a way that all objects can be seen on the screen. The section is selected in such a way that the image is presented as large as is possible when all objects are visible.

Note*: If you keep the SHIFT key held down while performing this command, only the selected objects will be zoomed maximally.*

The Display Selected Objects Command

When this command is activated, only the selected objects on the working area will be displayed as large as possible. This command be performed using the shortcut SHIFT+F4.

The Total Area Command

This command displays a preview of the total vinyl area.
The size of the area displayed depends on the frame size (vinyl height * vinyl width) of the output device, e.g plotter.
If a driver for a roll plotter was selected in the cutting dialog box, a vinyl length of 30m (ca. 100ft) is always displayed.

If a driver for a table plotter, for example, was selected in the cutting dialog box, the maximum width of this plotter (eg Wild TA 10 = 2m/66ins) is shown as vinyl length.

2.2.8.3 Job Sectioning in the Cutting Dialog

If the job to be cut exceeds the output width specified (in the cutting dialog, ***Width*** box), the message "***Sectioning Job"*** appears in the lower part of the cutting dialog.

Explanation: *Sectioning means the division of a job into as many parts or sections as are necessary to cut the complete job.*

When you click on the ***Cut*** button, the following dialog box appears:

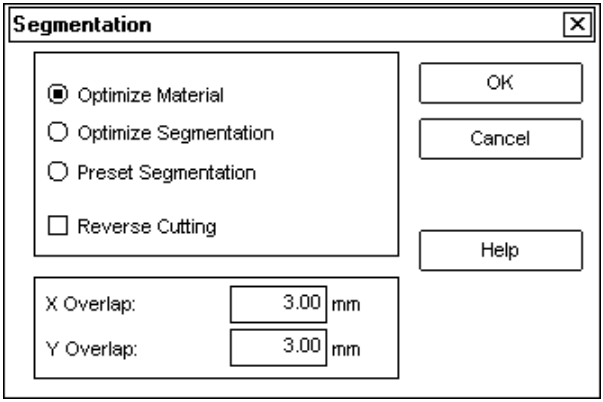


Fig. 84: Sectioning Dialog Box

When you activate the ***Optimize Material*** command, EuroCUT will divide the object into segments of the maximum permissible size.

The ***Optimization Segment*** command allows you to create segments of an equal size.

Cut Negative lets you specify that the image should be cut as a "negative", e.g. for use as a template in screen printing.

The intersections of the segments can be determined in the ***X*** and ***Y Overlap*** boxes***.***

To quit the dialog box, click on ***Cancel***.

Clicking on ***OK*** opens the sectioning preview window***,*** which lets you specify the sectioning of your job.,

Modifying Sectioning

To modify the sectioning, click on the gray sectioning lines and drag them to the desired position. EuroCUT will automatically add new sections, if necessary.
A hook in front of a segment indicates that the segment can be cut. If you deactivate the hook by clicking once on the left mouse button, the segment will be deactivated and will not be cut.

The menu items in the preview window and the functions of the right mouse button are the same as those in the cutting dialog.
Exception: You can use the menu item **Segment Size** to display the size of the segment on which the mouse cursor is positioned..

2.2.8.4 Color Separation in Cutting

Besides the cutting commands ***All Objects*** and ***Selected Objects,*** EuroCUT Professional also allows you to cut single colors or sequences of colors
The list box where you can make your selection is titled ***Cutting Mode***.

Every color used in your design appears in the ***Cutting Mode*** list with a number which clearly identifies each color layer.
Two horizontal color bars also appear in this list box.
These color bars show the sequence in which the color layers will be cut. The color layer appearing first on the left will be cut first, i.e. before you start cutting, you must load your plotter with vinyl of this color.

After the data of one color layer have been transmitted to the plotter, a *flashing question mark* appears on your working area instead of the ***Cutting Plotter*** icon.

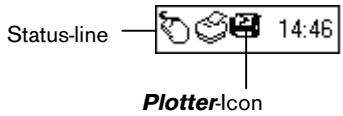


Fig. 85: Status line with Plotter-Icon of teh Job-Kontrolle

Double-clicking on this question mark activates the ***Job Control.***

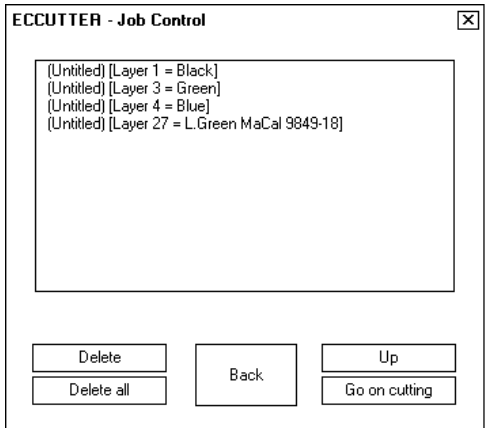


Fig. 86: Job Control with Job Name, Color Layer and Vinyl Information

In job control the color layers not yet cut appear in the sequence in which they were selected.
You can modify the sequence of colors at any time, delete single layers or cancel the whole job.
First load the plotter with the material which is in the first position in the stack. Then click the ***Continue Cutting*** button.
Repeat this procedure until all the colors have been cut.

Note*: For cutting color separations please use the cutting register marks from the drawing tools. The register marks will be cut in the same place on the vinyl regardless of color. This helps you to mount the various vinyl colors later.*

2.2.8.5 Common Difficulties Encountered During the Cutting Process

a) Vinyl Bunches Up

Result:
The blade causes the vinyl to shift, leaving gaps in the contour.

Remedy:
When loading the material, make sure it is held tightly and evenly to avoid any wrinkles.

b) Excessive Cutting Speed

Result:
Small characters or parts of your design, such as serifs, centers, dots, etc. are lifted off and separated from the liner.
Remedy:
Reduce the cutting speed and possibly the cutting pressure.

c) Excessive Cutting Pressure

Result:
The liner is cut or scored, small characters or parts are lifted off and separated from the liner, pieces of liner stick to your letters. Weeding becomes much more difficult.

Remedy:
Reduce the cutting pressure and possibly the cutting depth as well.

d) Insufficient Cutting Pressure

Result:
The vinyl and adhesive are not cut all the way through. Weeding becomes very difficult, if not impossible.

Remedy:
Increase the cutting pressure and possibly the cutting depth as well.

e) Excessive Cutting Depth

Result:
Vinyl, adhesive and liner are cut all the way through. Result is unusable.

Remedy:

Decrease the cutting depth.

f) Dull Cutting Blade

Result:
Only the vinyl is cut through; the adhesive remains more or less intact. When cutting standard vinyl, the life of the cutting blade should be fairly long. When cutting thicker, tougher materials, such as reflectives or sandblast stencil, the blade will dull much faster.

Remedy:
Replace the blade.

g) Small Graphics Separate from Liner

Result:
Weeding becomes nearly impossible. Small parts of the graphic, such as serifs, centers, or dots stick to adjacent vinyl and cannot be removed.
As a general rule, the smaller the graphics you are cutting, the thinner the vinyl must be and the stronger the adhesive to held everything in place.

Remedy:
Decrease the cutting speed and possibly the cutting pressure as much as necessary.

h) Liner Cut Through

Result:
Parts of the liner stick to the letters; weeding becomes very difficult, if not impossible.

Remedy:
Reduce the cutting depth and possibly the cutting pressure as well.

2.2.9 The *Align* Command

Fig. 87: The *Align* Tool

This ***Align*** tool is used to align two or more selected objects with each other or with the working area. When you click on the ***Align*** tool in your tool box, the following dialog box appears:

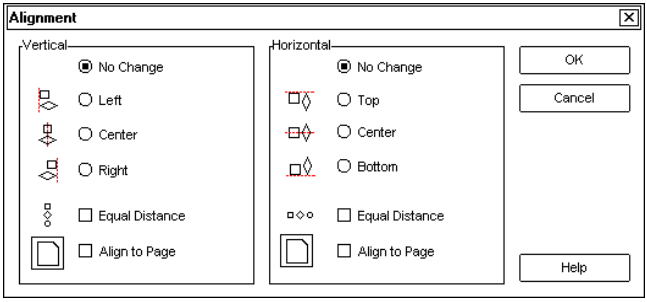


Fig. 88: The *Align* Dialog Box

You can align objects either horizontally or vertically or center them. It is also possible to specify that the objects are spaced at an equal distance apart.

2.2.10 The *Rotate Axis* Tool

This tool provides a quick and easy way to rotate selected objects by 90° (counter-clockwise).
It is particularly useful when you need to rotate your design to correspond with the size or shape of the material you intend to cut. You can also activate this function by clicking on the ***Rotate Axis*** icon in the tool box.

Note: *This procedure can also be carried out by pressing the A key.*

2.2.11 Other Tools

2.2.11.1 The *Measuring* Tool

Fig. 89: The *Measure* Tool

The measuring tool is used to perform measurements (between any two points) in your design. As soon as you click on the ***Measure*** icon in your tool box, the cursor changes into a bull's eye. Move the center of the bull's eye to the first point, i.e. the point from which you intend to measure.
While holding down the left mouse button, drag the bull's eye to the second point, i.e. the end-point of the distance you are measuring. A guideline provides a visual connection between the two points.

Note: *If you hold down the SHIFT key during this procedure, the measuring can be limited in a horizontal or vertical direction. This makes it easier to measure straight lines accurately.*

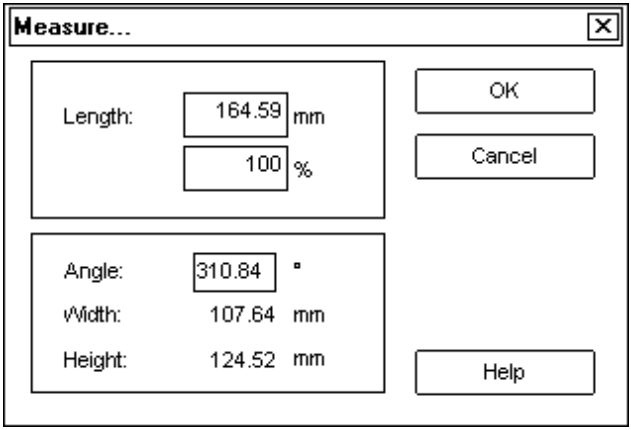


Fig. 90: The *Measure* Dialog Box

The ***Length*** field indicates the result of your measurement. To change this value, click the field and enter the new length. You can also make changes to the ***percentage*** field below.
The dialog box provides additional information such as the angle of the line you measured, the width of the object you measured

and the difference in height between the first (beginning) and second (end) point.

2.2.11.2 The *Outline Tool*

Fig. 91: The *Outline* Tool

The ***Outline*** tool is used to create contours around a selected text or object
You can access this command by choosing the ***Outline*** icon in the tool box.

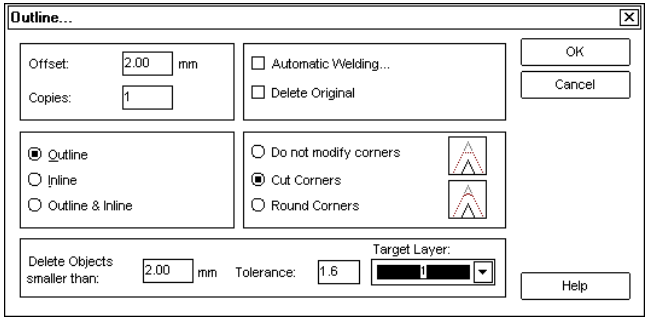


Fig. 92: The *Outline* Dialog Box

In the upper left corner, i.e. in the field titled ***Offset***, you can select the amount of spacing between the original contour and the inline or outline.
The ***Copies*** box gives you the option to select the number of inlines or outlines you wish to apply.

Automatic Welding is used to eliminate possible intersecting of inlines and outlines.
If you prefer to have the original contour deleted once you have applied the desired inlines or outlines, check the ***Delete Original*** box before you confirm and implement your selections. The next window offers you three different options regarding the shape of your outlined corners.

If you choose ***Do Not Modify Corners,*** the outline corners are calculated strictly mathematically on the basis of the nodes in the original contour, which may cause the corners to appear too drawn-out.

For this reason ***Cut Corners*** has been chosen as the default setting.

This option reduces the length of the corners to the ***Tolerance*** value indicated below. The third option, ***Round Corners*** converts the outline corner to a curve.

This rounding off also takes place at the corner offset specified in the ***Tolerance*** field.

Finally, ***Delete Objects smaller than*** automatically deletes objects smaller than the specified size and which do not need to be inlined or outlined.

2.2.11.3 The *Welding* Tool

Fig. 93: The *Welding* Tool

This tool is used to combine two or more selected objects into a single one by joining overlapping areas and deleting extra lines. This can be done ***Manually, Automatically, By Color***, ***Full Surface*** or ***Screenprint. Trim*** refers to cutting through objects either with straight lines or curves.

If the ***Delete Original*** box is checked, the original is automatically deleted once the welding process has been completed.

The other fields depend on which option you select and are therefore described in the relevant section.

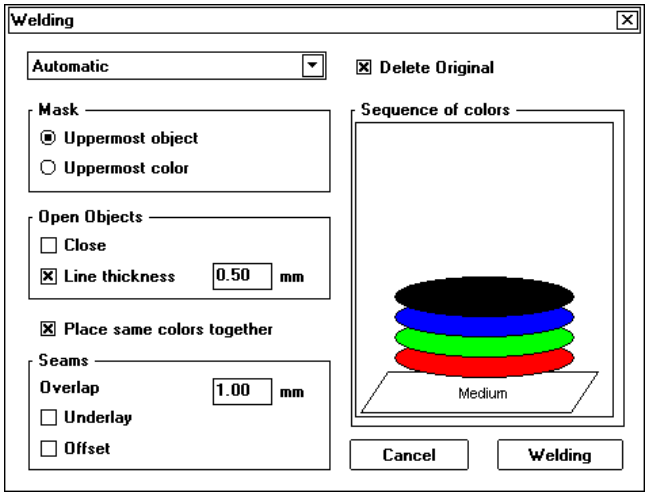


Fig. 94: The *Welding* Dialog Box

The ***Manual*** mode gives you the option to decide which intersecting lines you want to remove once the selected objects have been welded. On execution of the ***welding*** command, the outlines of the welded objects turn red but none of the intersecting lines are deleted. Using the arrow tool, select the line(s) you wish to remove. Press the DELETE key and the selected line(s) will be erased.

Part objects without intersections will be saved and you can continue to edit them later. The original color of the part objects will be retained when the objects are welded using the ***Manual*** mode.

The ***Automatic*** mode is the most frequently used welding option. When you select this feature, the entire welding process is performed automatically, deleting all intersecting lines.

Note: *This option also welds objects of different colors into one object.*

If you wish the color of the objects to be considered in the welding process, select ***By Color, Full Surface*** or ***Screenprint***.

Note: *If there are open objects among the selected objects, you can use the command* ***Open Objects*** *to specify if these objects are to specially prepared.*

If you perform the ***Close*** command, lines will be drawn to close all your open objects. You can specify the thickness of these lines in the appropriate field.

One of the main applications for automatic welding is to weld serifs used in script fonts, since serifs of one letter tend to overlap with those the next, which is, of course, something you want to avoid.
Automatic welding eliminates these overlaps and creates smooth transitions from one serif to the next, which can then be cut cleanly and applied as a continuous piece. Should you find certain parts of the letters missing after performing an automatic weld, select the ***Undo*** command and reduce the character spacing from 100% to 99%.
This will cause identically positioned nodes to move just enough so that they can be recognized by EuroCUT as individual nodes, which will make it possible for the automatic welding process to be completed properly.

Trim refers to cutting through objects either with straight lines or curves to create two closed contours that match each other at the cut.

If you wish, you can place one or several objects as a “master“ over the objects to be trimmed.

If you want to use several objects as masters, the objects must all be assigned to the same layer or be combined.

You can cut out the objects beneath the masters using the ***Trim*** command.
It is no problem to cut the object into “tiles“ as the masters can intersect as much as you like. The resulting part pieces will be sorted according to their positions and grouped together.

The ***Mask*** field lets you specify whether the ***Uppermost Object/Uppermost Combination*** or the ***Uppermost Objects*** of the same ***Color*** are to be used as patterns**.**

Open Trim divides the objects in the same way as ***Trim***, but the resulting part objects are not closed again at the trimming lines. This command is suitable for sectioning objects to be routed.

The ***Fill*** command allows you to fill objects consisting of any number of other objects.
You can choose if the uppermost object(s) of a layer is to be filled with the underlying objects.

Note: *Make sure that the objects to be filled are closed. This is necessary in order to be able to define the area to be filled.*

The Mask field lets you determine if only the **Uppermost Object/Uppermost Combination** or ***Several Objects of the Same Color*** are to be filled.

The ***By Color*** option removes all areas covered by overlying colors. It does not matter how many objects and colors you select.
If some of the selected objects are open, you can close them or add a line of a specified width. This is described in the ***Automatic*** section.
It may happen that the same color appears in various color layers. If you perform the command ***Merge Same Colors***, such layers will be combined to a single layer.

You can generate an ***Overlap*** or an ***Offset*** at the point where two colors meet.

Select ***Overlap*** or ***Offset*** in the ***Seams*** field and enter the desired amount.

Full Surface underfills objects of one color which are covering areas of another color.
The partially concealed objects are modified so that they underlie the entire surfaces of the overlying objects.
For open objects you can use the same procedure as described under ***Automatic.***

This application is most useful for shop window lettering which is often difficult to stick together when the ***By Color*** option is used. If you have a maximum of two or three colors it is best to work with the ***Full Surface*** option, where the single vinyl colors are stuck on top of each other.

Screenprint is an especially powerful tool for screen printers. First of all, the intersections of the single color layers are eliminated. Then the colors are layered in the sequence specified in the ***Color Sequence*** box. Finally a small line is added as an overlap at the “seams”' of the single color layers.

You can determine the desired color layering in the preview window on the right side of the dialog. Clicking on the mouse lets you “grasp” a layer and drag it to its proper position. The chart indicates the position of the layers.

In the ***Seams*** and ***Overlap*** boxes you can enter the desired overlap between the color layers. In each case the lower layer underlies the higher one.

You also have the possibility of merging recurring colors in one layer.

To do this, select ***Merge Same Colors.***

This option is especially useful for creating templates for screen printing, as in this printing process the darkest color is always applied last so as to avoid streaks which might occur when applying the individual colors.

Note: *If your graphic includes open objects, proceed as described in the section on the* ***Automatic*** *mode.*

2.2.11.4 Scanning and Vectorizing

With these two powerful EuroCUT functions, you can convert scanned images (bitmaps) into vectorized contours that can be cut by your plotter.

The optics of the scanner register individual points or pixels in the image. There are two ways of transferring this data to EuroCUT.

The simplest way is through the TWAIN interface. TWAIN is a software product used for image data transfer between different programs. It is usually supplied along with your scanner.

If you do not have access to TWAIN, the only other way to import the scanned data is through standard EuroCUT import procedures, e.g. using BMP, PCX or TIF files.

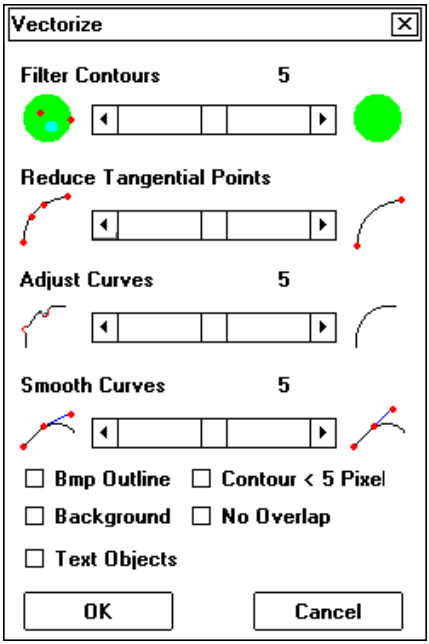


Fig. 95: The *Vectorize* Dialog Box

To optimize the vectorizing process, four different types of filters are available:

Filter 1:
Filter Contours reduces major noise (garbage) by ignoring contours consisting of less than five pixels.

Filter 2:
Reduce Tangential Points reduces the number of points or nodes on a curve. The higher the degree of reduction, i.e. the fewer the nodes that are retained, the further the scanned curves will deviate from the original. On the other hand, fewer nodes means less clean-up. Therefore, a moderate amount of reduction generally constitutes a workable compromise.

Filter 3:
Adjust Curves considers the overall direction of straight lines and curves and eliminates stray horizontal and vertical lines that appear to have no effect on them. Thus, points or nodes within the selected tolerances are ignored during the vectorizing process.

Filter 4:
Smooth Curves aligns the tangents of curve points. The higher the degree of adjustment, the more the curves are smoothed. Smooth curves with perfectly aligned tangents have the advantage of producing very clean cuts.
However, excessive smoothing can once again cause too much deviation from the original. Therefore, a moderate value is preferable.

With the ***BMP Outline*** option in the vectorizing dialog box you can choose to have the original bitmap contour reproduced as outline, i.e. not filled. The BMP outline will appear as a somewhat jagged line in your working area, along with the vectorized contour. A gray color layer added at the end of the color layer list is automatically assigned to this BMP outline. If you wish to assign a different color, select the gray layer (R 128, G 128, B 128) and activate the ***Sel*** icon in the color layer box. Double-click on the color layer of your choice to assign it to the BMP outline. The BMP outline facilitates clean-up of the vectorized contour considerably without affecting its final quality in any way.

If you check the ***Contours < 5 Pixel*** option, closed contours will be created for objects consisting of fewer than 5 pixels.

With the ***Background*** option you can also vectorize objects which are of the same color as the background of your image.
The ***Without Intersection*** option allows you to eliminate automatically any intersections which may appear within the vectorized objects.

The ***Text Objects*** option makes it possible to achieve better vectorizing results.

2.2.11.4.1 Working with Color Bitmaps

The functions described above apply to the vectorization of both black and white and color bitmaps.

When scanning bitmaps with a color depth of 24 bits (approximately 16 million colors), you must reduce the number of colors to 16, prior to vectorization.
Since each color will have to be assigned a layer and corresponding vinyl color, only relatively limited color bitmaps can be processed effectively.
The following ***Color Assignment*** dialog box is used to convert bitmap colors to vinyl colors:

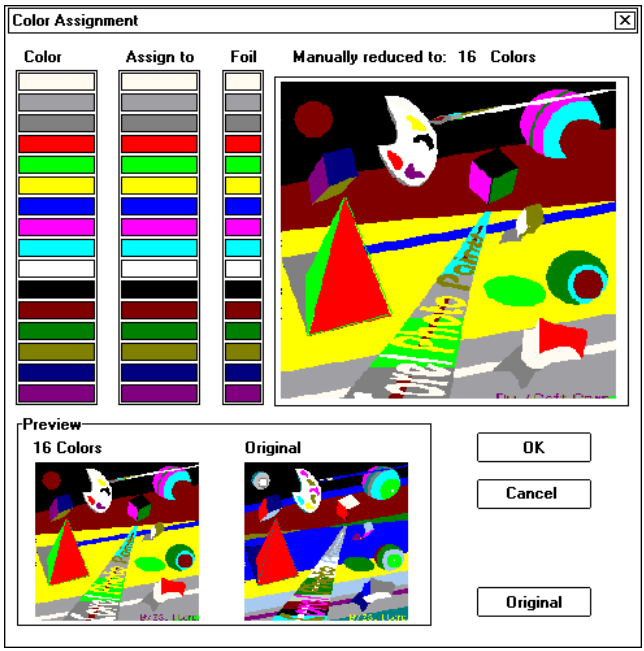


Fig. 96: Color-Assign Bitmap Colors to Vinyl Colors

In the preview window titled ***Original,*** the scanned 24-bit color bitmap is displayed.
In the preview window titled ***16 colors*** you can see the limited color bitmap. Being able to compare both images will help you decide which one to use for vectorizing.

Note: *Clicking on* ***Cancel*** *selects the original rather than the reduced bitmap for vectorizing.*

The larger window titled ***Manually Reduced to***: displays the image in equivalent vinyl colors.

This gives you a chance to preview the vectorized image the way it will look once it is cut out of vinyl.
The column of colors under the heading ***Color*** is used to combine similar colors or hues.
Select a color by clicking on it once; holding down the SHIFT key will allow you to select additional colors.
Deactivate colors by simply clicking on them once again.

The ***Assignment*** column shows the vinyl colors representing combined original colors and hues.

In this column you can edit both the assignment of vinyl colors as well as the visual result displayed in the ***Manually Reduced to****:* bitmap.

By clicking on the ***Original*** button, you can restore the original color assignment, if necessary.

Click on ***OK*** to proceed with the vectorization.
Output the design using output/cutting procedures for color-separations.

Note*: Select colors with your left mouse button in the* ***Color*** *column; deselect them with a single click of the right mouse button in the* ***Assign to*** *column.*

2.2.11.4.2 Important Information on Scanning

1. Optimal scanning results are achieved by using the highest possible *optical resolution* on your scanner.
Most flat-bed scanners offer a resolution of 300 to 600 dpi.
Please consult your scanner manual for exact specifications.

2. Use the highest-quality original possible; if necessary, make a reduced (smaller) photocopy to give you better edge quality and, ultimately, better vectorization.

3. The determining factor in the time required for vectorization is the amount of data, which is proportional to the size of the bitmap. Therefore, a small original will work much better.

4. Please make sure you place the original in your scanner at a ***right angle***. Even small deviations can distort the image and reduce the quality of the scan, thus increasing the amount of clean-up or editing work.

Note*: You can make small corrections in the rotation angle with the rotation feature in EuroCUT. The smallest possible unit for rotation is 0.1mm (.0039 in). Another option is to use the measuring tool. Measure the rotation angle and change its value to 0 (zero) in order to reposition the image horizontally.*

To cut bitmaps out of vinyl, it is not necessary for you to have color scanning capabilities. Black-and-white scans produce equally good results and are much easier to work with because they contain far fewer data.

2.2.11.5 The *Engrave* Command

Fig. 97: The *Engrave* Icon

If you click on the ***Engrave*** icon you will be able to see the lines cut by the router/engraver in a reduced size.

With your left mouse button click on the icon. The following dialog box appears:

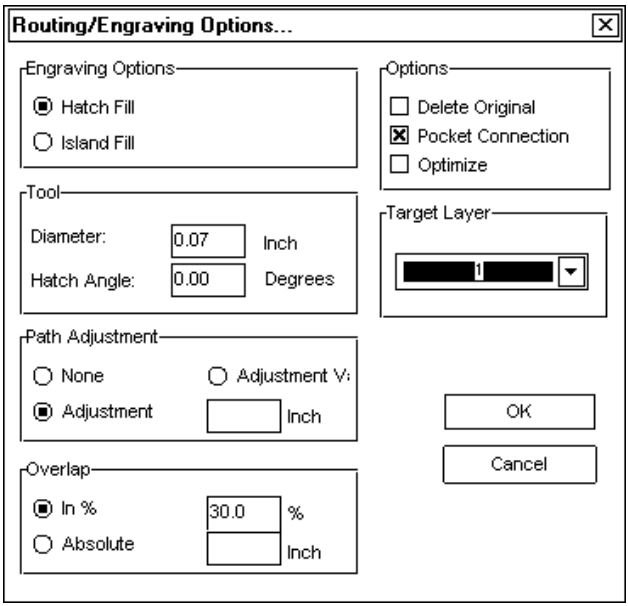


Fig. 98: The *Routing/Engraving* Dialog Box

There are basically ***two*** possibilities for routing/engraving:.

1. Hatch Fill

You can provide the engraving area with a hatch by selecting the ***Hatch Fill*** option. The area will be engraved along this hatch. The ***Hatch Angle*** can be adjusted in the field of the same name. In Figure 72 a hatch angle of 45° has been selected.

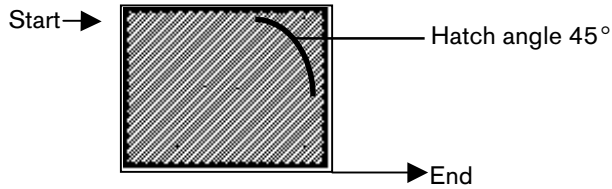


Fig. 99: Engraving with Hatch Fill

2. Island Fill (Multi-Inline)

If you click this button, the engraving area will be filled with inlines. The area will be engraved along these lines from the outside to the inside.
The areas between the lines are called “islands”.

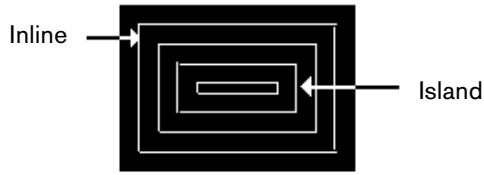


Fig. 100: Engraving with Island Fill

Tool

This is where you enter the diameter of the tip of the engraving tool you are using. For example, if you are using a 3mm (.118 in) bit, enter 3.

Hatch Angle

This value determines the angle (relative to the material) in which the fill pattern will be created.

Path Adjustment

Here you can decide whether the bit diameter will be considered for the contour of the object you are engraving.

If you select ***None***, the external contour of the object remains unchanged (see Fig 74).

Note: *As a result, the engraved object will be enlarged by half the bit diameter, since the tip of the bit follows the original contour.*

Fig. 102: Path Adjustment "None" plus ½ Bit Diameter

If you select ***Adjustment***, the contour of the object will be moved inward by half the bit diameter, i.e. an inline will be created with an offset to the original contour of ½ a bit diameter. As a result, the outer contour created by the engraver will be identical to the original contour. This means that the external contour of the object to be cut out will be moved inside by the amount of half the engraver's width.

Under ***Adjustment V*** you can enter a specific adjustment by which the original contour will be moved inward.

Note: *An inline will be created with an offset of the specified value plus half the bit diameter.*

Overlap

The ***Overlap command*** determines the distance between the individual tool passes or fill lines. By selecting an overlap, you avoid leaving ridges between passes.

Example:

1. The tool diameter is 2mm (0.082 in).
2. The ***In*** *%* button is set to 30%.

Result: 2mm(.0078 in) - 30% = 1.4mm (.054 in)

Note: *30% is equivalent to the absolute value of 1.4mm (.055 in). If you select the* ***Absolute*** *option, you can enter this value directly rather than selecting the % value first*

Options

If you select the ***Delete Original***, the original contour will be deleted once the fill is completed.

The ***Pocket Connection*** option determines whether or not the individual fill lines are connected. If the fill lines are not connected, the amount of time it takes to complete will increase considerably.

If ***Optimize*** is selected, the fill lines are forced to connect even when the ***Pocket Connection*** command alone would cause the tool to lift.
This forced connection is made via the shortest distance.

Note: *This again shortens the time required to fill the object; however, in some cases it may have an undesirable effect on the fill pattern.*

Target Layer

This is where you determine the color layer in which you wish to the fill to appear. The purpose of this option is twofold: firstly, to create a greater visual contrast between the original object and the fill and secondly, to select the engraving priority for each layer.

The objects are engraved in the reverse order to the order in which you selected the layers. Initially, all objects are sorted so that inner objects are engraved before outer objects. Subsequently, the color layers are processed in descending order, e.g. red (2) before black (1); green (3) before red (2); and blue (4) before green (3).

Note: *The color layers are used to select the engraving depth for each layer. For more detailed information on the connection between color and engraving depth, please see* ***Engraving Depth*** *below.*

Engraving With or Without Frame

There are basically two different in which you can engrave an object:

If you select ***Engrave With Frame***, the object itself (e.g. a text string) remains intact (raised), while the background is filled and engraved (see Figs. 103 and 104).
If you select ***Engrave Without Frame***, the object itself (e.g. a text string) is filled and engraved., while the background remains intact (see Fig. 102).

To draw a frame around the objects that are to remain intact (raised), use the ***Pencil*** (drawing) tool and select the ***Rectangles*** option. Once the frame or rectangle is in place, EuroENGRAVE will recognize it and engrave the background within the frame rather the objects themselves.

Note: *Please make sure that, prior to activating the engraving module, all objects are selected (Shortcut: CTRL+A). The number of objects selected can be verified in the EuroCUT status line.*

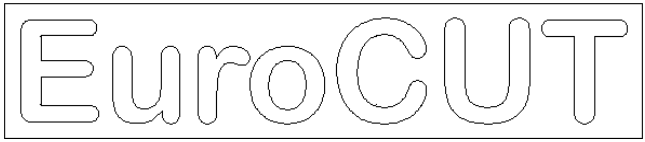


Fig. 103: Text With Frame in EuroCUT Edit Wireframe Mode

Fig. 104: Framed Text String Remains Raised, Background is Filled / Engraved

Fig. 105: Without a Frame, the Text String Itself is Filled

Engraving Depth

With EuroENGRAVE it is possible to select different engraving depths via the layer settings dialog box (see Fig. 77).

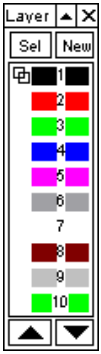


Fig. 106: The *Color Layer Box* in EuroCUT

Select a color layer by clicking on it with your ***right*** mouse button. This brings up the ***Layer Settings*** dialog.

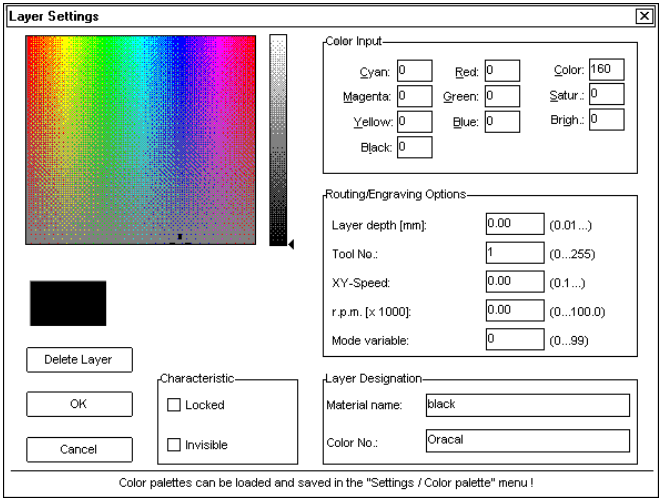


Fig. 107: Selecting Layer Depth / Engraving Depth

The depth settings depend on the capabilities of the routing/engraving machine connected to your system, which will determine whether or not the entered values can be interpreted and processed.

Note: *Depending on the machine, additional parameters may have to be set.*

This is done in the EuroCUT ***Cutting*** dialog box under ***Options***. **Options** can only be activated in the ***Engraving*** mode.

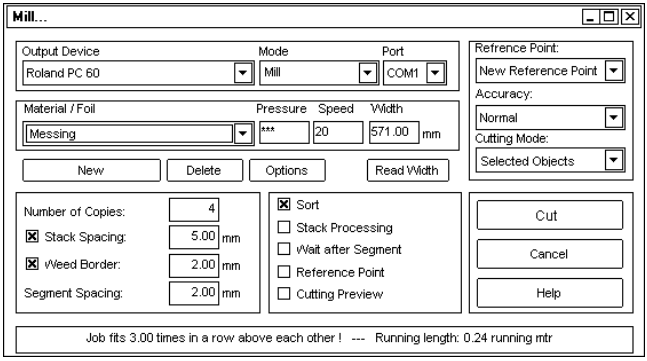


Fig. 108: The EuroCUT *Cutting* Dialog Box in the *Routing* Mode

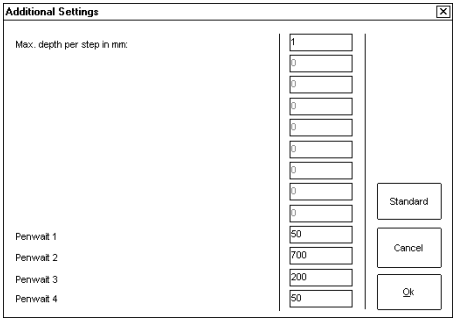


Fig. 109: The EuroCUT *Cutting* Dialog Box in the *Engraving* Mode

Pen Wait

The amount of time your machine takes to start and stop the engraving process is governed by the values you select for the ***Pen Wait*** times. Please consult the technical manuals that came with your machine or contact your dealer or the manufacturer.

Wait times: Pen1: Wait before pen-down (lowering head)
Pen2: Wait after pen-down
Pen3: Wait before pen-up (raising head)
Pen4: Wait after pen-up

(The unit is ms)
Note: *These values are used only if the settings in the driver need to be modified. Thus, if the above values are"0" (zero), the* ***Pens*** *settings in the driver will be used. To change the values in the driver itself, run the utility program* ***plotedit.exe****.*

Note: *This utility program is always located in the EuroCUT directory.*

Max. Depth Per Step in Mm (1mm = .0039 in)

With this parameter you can set the tool depth per pass. Depending on the properties of the material, several passes may be necessary to achieve the depth specified for a color layer.

Example:

You have assigned the red color layer a depth of 3mm (.0117 in). As ***Max. Pass Depth*** you indicate 1mm (.0039 in). This means that the red layer will require three passes of 1mm depth each.

This makes it possible to engrave even extremely hard and thick materials.

Offset from Material

This parameter specifies the distance between the tip of the bit and the material.

Note: *On routing/engraving equipment, such as the Zündbed plotter with Z axis controlled routing head (RZP) or the Mimaki ME 500, which are capable of automatically setting the O or reference point for the Z axis (depth), the* ***Offset from Material*** *must be set to 0 (zero).*

Reference Point

Please note that during engraving, the option to set the reference point (0/0) in the EuroCUT cutting dialog box is always activated. The 0/0 point is always located in the lower left corner of the working area. If ***Reference Point*** is selected, the position of the object to be engraved is 0/0 plus offset.

You can change the position by double-clicking on the object itself with the left mouse button (full screen mode) or by double-clicking on the contour (edit wireframe mode). In the EuroCUT

Design dialog box (see Fig. 80), you can enter the exact position of the object related to the 0/0 point.

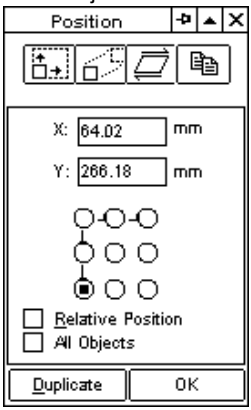


Fig. 110: EuroCUT *Design* Dialog Box

Note: *If the* ***Reference Point*** *button is activated, the tool will move to position 0/0 plus offset coordinates.*

2.2.12 The *Pencil Attributes* Tool

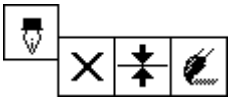


Fig. 111: The Pencil Attributes Tool

This tool provides objects with pencil attributes, creates hairlines or deletes pencil attributes.

Deleting Pencil Attributes

Fig. 112: The *Delete* Icon

Clicking on this icon deletes all pencil attributes.

Creating Hairlines

Fig. 113: The *Hairline* Icon

Clicking on this icon creates a hairline around selected objects. This hairline can be used for cutting the objects.

Note: *The thickness of this hairline is not variable and is always 0.1 mm (.0039 in).*

The Pencil Attributes Dialog Box

Fig. 114: The *Pencil Attributes* Icon

The ***Pencil Attributes*** dialog box can be used to create outlines of curves, combinations of objects or text strings.
Outline pencils can be used to draw object contours in the ***Full Surface*** or ***Preview*** mode.

Note: *The* ***Pencil Attributes*** *tool does not affect the representation of objects in the wireframe mode (F9). In this mode the contours of objects are drawn with a simple outline in the layer color.*

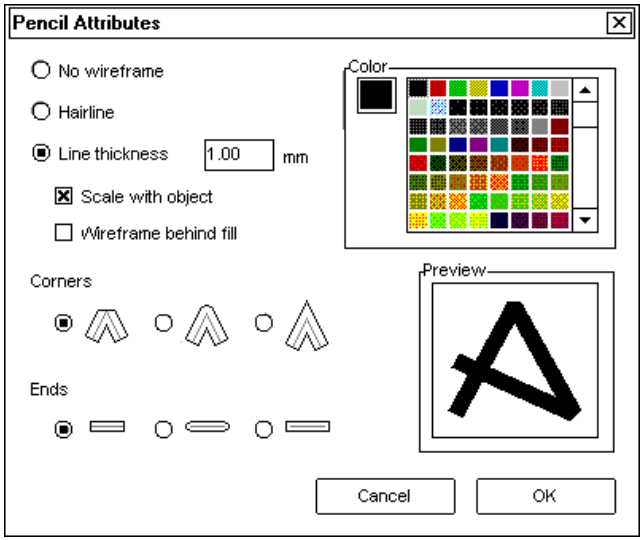


Fig. 115: The *Pencil Attributes* Dialog Box

If you select ***No Wireframe***, the contour of your object will not be emphasized.
If you choose the ***Full Surface*** or ***Preview*** mode, closed curves will be shown as surfaces without contour lines. Open curves will be shown as contours in the appropriate layer color, as in the ***Wireframe*** mode.
If you select ***Hairline,*** a thin line of uniform thickness will be drawn around your object. You can specify the color of the hairline in the ***Color*** box. The color may be different from the layer color. It is thus possible to make a contrast between your objects and their fillings in the full surface mode as well.

Select ***Line Thickness*** in order to define the thickness of the hairline***.***
Here there are further settings available: ***Scale With Object*** will adjust the line thickness proportionally when your object is scaled or distorted. If you do not select this option, the thickness of the hairline remains unchanged.

You can select the ***Wireframe Behind Fill*** option to prevent the outline running into the fill. The contour will then be drawn prior to the fill so that only the part of the contour outside the fill is visible. Furthermore, you have the possibility of defining the shape of the corners.

You can choose between cut-off, rounded and sharp corners. Icons show the shapes of the various corners, which are also displayed in the preview window.

Besides this, you can also determine the shape of the ends of open objects. They can be cut off, rounded or stretched. For this, please see the appropriate displays.

The current pencil color is shown in the color box left of the palette and also in the preview window.
There are two ways of changing the pencil color:

1. To determine a new color for the pencil, double-click on the color box left of the palette. The following ***Color Selection*** dialog box will appear will the current values of the pencil color:

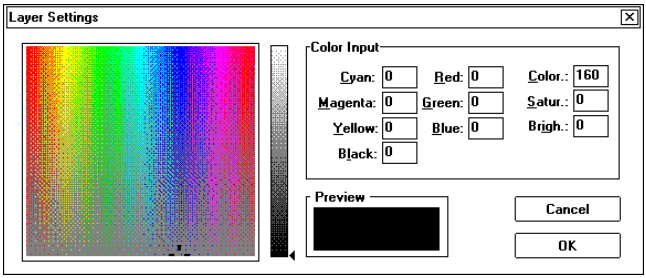


Fig. 116: The *Color Selection* Dialog Box

Once you have specified the pencil color, it will appear in the ***Pencil Attributes*** dialog box in the color field next to the color palette. The pencil color will also be shown in the preview window.

2. The palette offers you a choice of 256 predefined colors. You can select one of them by simple clicking with the mouse on the appropriate color box. You can use the scroll bar to the right of the color palette to make display other colors visible. You can define a particular color as the pencil color by simply clicking on it with the mouse. If you wish to modify the color, double-click on the appropriate color field. The ***Color Selection*** dialog box described above will appear so that you can make the modifications you desire.

2.2.13 The Color Layer Box

In the default setup of your EuroCUT desktop, the ***Color Layer Box*** is located on the left, directly below the tool box. It contains a number of primary color layers available to the user during the design process. All layers displayed in the layer box have been assigned a layer number. Among the many uses of the layer box are the coloring/layering of objects, the defining of different vinyl colors, the selecting of objects of specific colors, and the locking and rendering invisible of certain color layers.

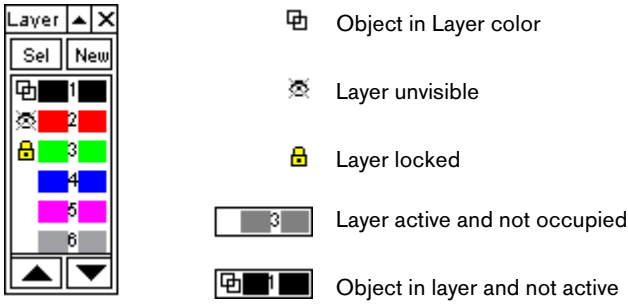


Fig. 117: The Color Layer Box

The default setting of EuroCUT has the color layer box displaying a total of 7 layers/colors. Layers 1 through 6 are predefined and can therefore not be changed. To accommodate additional layers/colors, position the cursor at the bottom edge of the box. Once the cursor turns into a double arrow, you can drag the bottom edge down and thus enlarge the box as required.
You can make the layer box disappear from your screen by clicking on the ***Quit*** (☒) field at the top of the box.
The ***Rollup*** (▲) button can be used to make the colors in the layer box appear or disappear.

The layer box can be moved at any time by clicking the gray ***Layer*** bar at the top of the box and dragging it to the required location
To make the layer box reappear on your screen, either press CTRL+2, or select ***Show Layerbox*** in the ***Settings*** menu.

Activating the ***Sel*** icon at the top left of the box simultaneously selects all objects that were created in the highlighted color layer. To indicate selection, small black squares surround these objects.

By clicking on the ***New*** icon and making appropriate selection in the ***Layer Settings*** dialog box, you can define new colors.

When you exit the program, EuroCUT will save the last position as well as the last size of the color layer box.

Double-clicking on one of the layers/colors will assign the color to all previously selected objects.
A single click with the right mouse button on one of the layers/colors will open the ***Layer Setup*** box. This dialog box can also be opened via the L shortcut.

Once you have opened the Layer Setup box you can you can select the required color using the PGUP and PGDN keys.
A new layer can be added when the last layer in the layer box is activated.

The *Layer Setup* Dialog Box

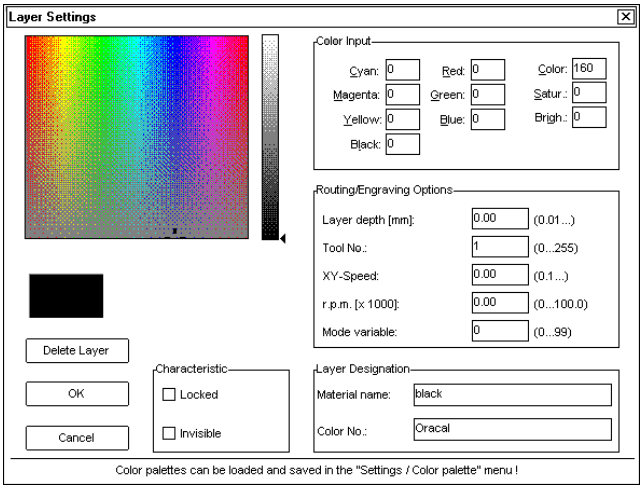


Fig. 118: The *Layer Setup* Dialog Box

Three sets of options are available in the **Layer Setup** dialogbox:

1. Cyan, Magenta, Yellow, Black
2. Red, Green, Blue
3. Color, Saturation, Brightness

Routing Options

Routing Options can be used to set various routing parameters:

Layer Depth defines the depth setting for the Z axis.

Tool specifies which tool is to be used if the output device has the capability of switching from one tool to the other.

Velocity is for setting a speed value other than the one used as default in the device driver.

Layer Attributes

Locked means that a particular color layer is no longer available for selection. A lock in front of the layer color symbolizes this status.

Invisible makes selected objects disappear from the desktop. A crossed-out eye in front of the color layer that has been defined as invisible symbolizes this status.

Note: All *attributes can be reversed at any time simply by using the right mouse button to click on the appropriate color layer, which activates the* ***Layer Setup*** *box in which you can make all necessary changes*

Layer Designation

In the ***Material*** field you can, for instance, assign a specific type or manufacturer of vinyl to the color layer.

Under ***Color Number*** you may also enter the corresponding product number.

Note: *Both of these entries will be displayed in the job manager when you are getting ready to cut a color-separated design. The advantage of using these fields is that you can assign a color layer to all the materials you carry in stock. The selections made during the design process will then be evident when the job goes to production. Palettes, i.e. specific sets of color layers, can be created and stored for each type of vinyl or other material.*

Shortcuts in Layer Editing

The following shortcuts can be used for layer editing:

L opens the ***Layer Setup*** dialog box.

Scrolling speed in the layer box:

SHIFT	10 times faster
CTRL	100 times faster
SHIFT+CTRL	1000 times faster

Moving Around the Layer Box:

POS1	Move to first layer
END	Move to last layer
PGUP/PGDN	Move over 1/10 of total layers
Cursor up/down	Move to next layer

Advantage of the scrolling keys:

*The **Layer Setup** dialog box stays open while you are selecting the new layer, and the appropriate values can be entered directly.*

CTRL+Double-click	Provides the selected object with a wireframe in the layer color which is currently active.

Moving Single Layers:

1. Position mouse cursor on desired layer.
2. Press left mouse cursor and hold it down .
3. Drag layer to required location.
4. Click right mouse button.

2.3 The Object Attributes Box

The ***Object Attributes*** dialog box can be opened either by double-clicking on one of the black handles at the edge of the object or by pressing the G key.

The ***Object Attributes..*** dialog box can be used to change the parameters ***Size, Position***, ***Skew/Rotate*** objects and ***Duplicate*** objects in a horizontal or vertical direction at selected intervals.

The ***Object Attributes...*** dialog box contains all the functions most frequently required and considerably speeds up the work on your job. The various functions of the ***Object Attributes..*** dialog box are explained in detail in the following sections.

Note: *The three icons in the top right part of the* ***Attributes...*** dialog box *are the same in all modes and have the following purpose:*

You can use the ***Pin*** icon to fix the ***Object Attributes ...*** dialog box firmly to the EuroCUT desktop. If you click the ***Pin*** icon, the pin will turn into a and the ***OK*** button will be replaced by a button labeled ***Assign.***

Note: *Once the* ***Object Attributes...*** *dialog box has been pinned, it will not be closed after the desired values have been entered.*

2.3.1 *Object Attributes*-Dialog Box Options

2.3.1.1 *Size*

Fig. 119: The *Size O*ption

If you select this option, the following box appears:

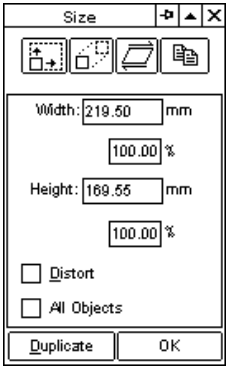


Fig. 120: The *Object Attributes...* Dialog Box in the *Size* Mode

In the ***Height*** and ***Width*** boxes you can enter the height and width of one or all selected objects as numbers or percentages.
If you click the ***All Objects*** button, the values you enter will apply to all objects.
The two fields are connected to each other, i.e. if the width is changed, the height will also be modified by the value typed.

If you click the ***Distort*** button, you have the possibility to alter the ***Height*** and ***Width*** fields separately.

2.3.1.2 The *Position* Option

Fig. 121: The *Position* Icon

If you click on this option, the following box appears:

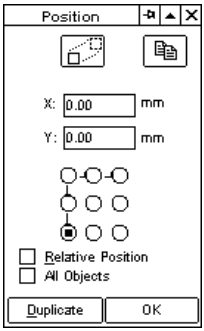


Fig. 122: The *Object Attributes...* Dialog Box in the *Position* Mode

This option allows you to position your objects anywhere on your working area.

In the **X** and **Y** boxes you can enter the horizontal and vertical coordinates relatively and absolutely in relation to the reference point.

Absolute and Relative Positions

The absolute position means the real X and Y coordinates of the object's point of reference.

Reference Point

When the object is selected, the reference points are represented as black squares. These squares correspond to the circles in the ***Position*** dialog box.

Note: *The center of the selected object is not marked as a point of reference.*

1 Center of the marked object

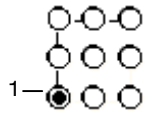
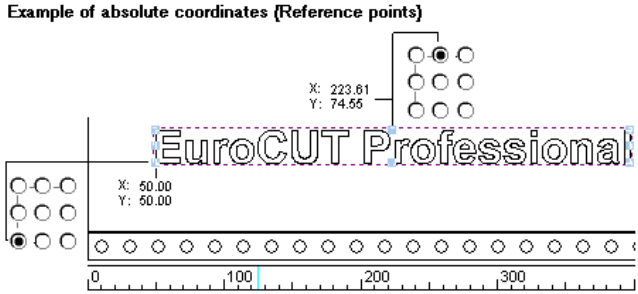


Fig. 123: Object Center



If the ***Relative Position*** option is chosen, the circles are shown , which means that they are no longer active. You should set the required point of reference for repositioning the circles before activating them.

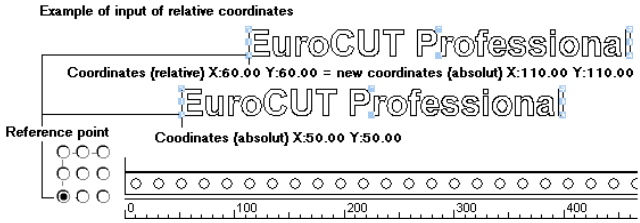


Fig. 124: Example of Relative Coordinates

In the example (Fig. 124) X and Y values of 50mm (1.96 ins) were entered. The value of 60mm (2.36 ins) was entered for the relative coordinates to the reference point, i.e. the reference point was moved 60mm (2.36 ins) both horizontally and vertically. This results in a new absolute value of 110mm (4.33ins) for the X and Y coordinates.

2.3.1.3 The *Skew/Rotate* Tool

Fig. 125: The *Skew/Rotate* Tool

If you click on the ***Skew/Rotate*** icon in the ***Object Attributes...*** dialog box, the following dialog appears:

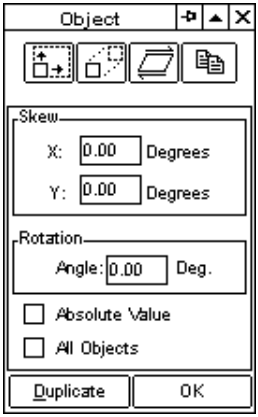


Fig. 126: The *Object Attributes...* Dialog Box in the *Skew/Rotate* Mode

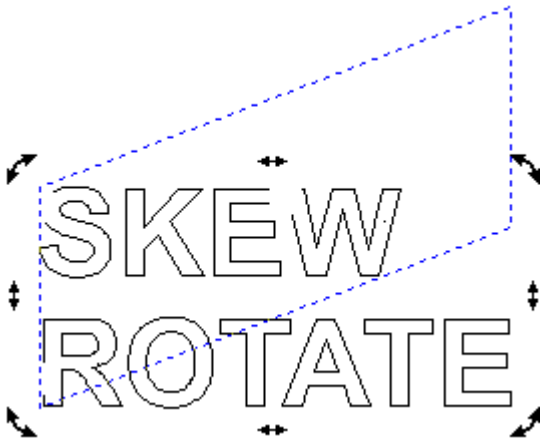


Fig. 127: Objects in the *Skew/Rotate* Mode

You can rotate your object by moving your mouse cursor to the round arrows at the corners of the object and keeping it held

down. When the object has been rotated, its position will be shown by a dotted blue line.
You can see the exact amount of the rotation in the status line on the bottom left of the screen near the mouse coordinates.

Double-clicking on one of the four round arrows at the corners of your object will activate the ***Skew*** command in the ***Object Attributes***... dialog box.
A positive value rotates objects clockwise, a negative value counter-clockwise.
If you click on one the straight double arrows while holding down the left mouse button, your object is skewed to the left and right and upwards and downwards. The sides you click on will be moved, whereas the ones opposite remain the same.

If you activate the ***Absolute Values*** command, the absolute angle will be displayed when the object is rotated or the absolute X or Y coordinates when the object is skewed.

2.3.1.4 The Duplicate Command

Fig. 128: The *Duplicate* Command

If you activate this command in the ***Object Attributes...*** dialog box, the following dialog box appears:

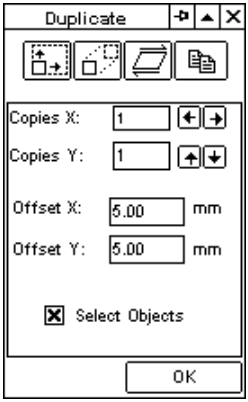


Fig. 129: The *Object Attributes...* Dialog Box in the *Duplicate* Mode

Number X
You can enter the number of duplicates in a horizontal direction in this field. The arrows to the right of this field indicate the direction (right/left) in which the duplication is to be effected..

Number Y
You can enter the number of duplicates in a vertical direction in this field. The arrows to the right of this field indicate the direction (upward/downward) in which the duplication is to be effected.

X Offset
Here you can enter the distance you wish to have between the duplicates in a horizontal direction in this field.

Y Offset
Here you can enter the distance you wish to have between the duplicates in a vertical direction in this field.

If the ***Select Objects*** command is active, all your objects will be automatically selected after they have been duplicated.
Click ***Assign*** to confirm your entries.

2.4 Import

With this command you can load graphics which are in a format other than the EuroCUT job format into your working area.

The ***File Import*** dialog box is very similar to the one used for ***Open File.***
The only difference is that with ***Import*** you can choose to make changes in the size of the file before loading it into your working area simply by entering values in the ***X*** and ***Y Factor*** fields. Select the file you wish to import via the ***File Name*** and ***Directories*** fields.

You can see all the formats which you wish to import in the preview window in the ***Import*** dialog box.

Note: *With text files the preview window is not active.*

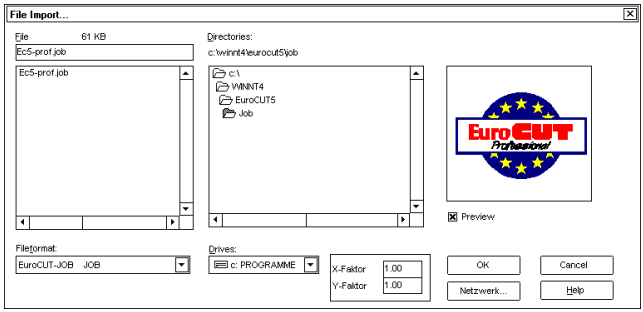


Fig. 130: The *Import* Dialog Box with Preview Window

The size of the file to be imported is shown in the upper part of the ***Import*** dialog box.

You can make a directed search for files by typing the first letters of the file name. EuroCUT then jumps to the first file beginning with the letters you have typed.

You can use the network button to connect network drives so as to be able to access files more rapidly.

The import preview window for EuroPhotoCut is only displayed as a bitmap and not included in the calculation until it is ultimately imported. This permits the preview to be created more rapidly.

The following import filters are available to you in EuroCUT:

AI Illustrator	EuroPhotoCUT	Mustervorlage JTP
AI/EPS Import	HPGL Plot-Dateien	Paintbrush .pcx
Adobe Photoshop 3.0	JPEG / LEAD .cmp	TARGA-Bitmap .tga
CMX Importfilter	JPEG-Bitmap .jpg	TIFF-Bitmap .tif
CorelDRAW-Paletten	Kodak Photo CD .pcd	Text-Dateien
DXF AutoCAD	LAY Converter 1	URW Signus Ikarus
EPS inc. TIFF .eps	MacPaint .mac	Windows-Bitmap .bmp
EPS,AI PostScript	MacPict .pct	
EuroCUT-JOB JOB	Metafile .wmf	

CMX Import

You can import CMX files to EuroCUT with the Windows Explorer or via Windows 95 using drag & drop.

Note: *Before you can import files to EuroCUT using drag & drop, you have to enter the import paths under* ***Import*** *in the* ***Settings*** *menu and also select the required filter in* ***Preferred Import Filter****.*

Procedure:

For drag & drop arrange the program windows (e.g. CorelDRAW and EuroCUT) on your screen so that they are either adjacent to or below one another.
If you click on the task bar with the right mouse button a menu is opened showing you various arrangements of windows.
Select the object(s) you wish to import to EuroCUT Professional and drag it (them) to the EuroCUT desktop.
If the object you wish to import is in EPS format or in a format for which there is a choice of several filters available, the following window will appear if you have not selected a preferred filter in the ***Basic Settings***:

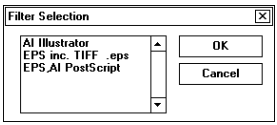


Fig. 131: Filter Selection for File Import

Here you can select the format in which the file is to be imported. Click ***OK*** to confirm your selection. If only one filter is available for importing, the file will be automatically imported to EuroCUT. It is also possible to import CMX files via the EuroCUT ***Import*** dialog.

Objects can also be imported from CorelDRAW 6, 7 or 8 to EuroCUT via the clipboard.
You can select single objects from CorelDRAW and import them to EuroCUT using drag & drop.

Note: *If you wish to import objects containing text strings, make sure that you convert the text strings to curves before importing them. The objects will not be imported if you fail to do this.*

2.5 Export

This command allows you to use jobs created in EuroCUT in other programs. In order to do this, you must first save them in a format other the EuroCUT job format.

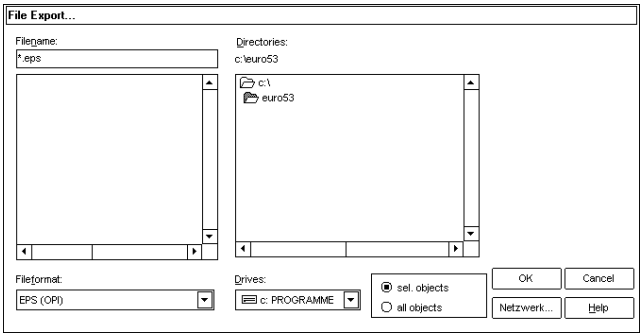


Fig. 132: The EuroCUT *Export* Dialog

The following export filters are available in EuroCUT Professional:

AI (Corel6/7)	HPGL Export
CMX (Corel6/7/8)	JPEG-Bitmap .jpg
DXF Export	Paintbrush .pcx
EPS (OPI)	TIFF-Bitmap .tif
EPS 1:1 PostScript	URW Signus Ikarus
EPS Export	Windows-Bitmap .bmp

Standard *EPS* export format exports the file in a standard size (DIN A3, approx. 11 x 17 inches) for import to CorelDRAW.

EPS1:1Postscript export format exports the file in the same size you created it.

HPGL export format exports the file in the standard HPGL format.

If you select one of the four bitmap export filters, the ***Export*** dialog box will appear as follows

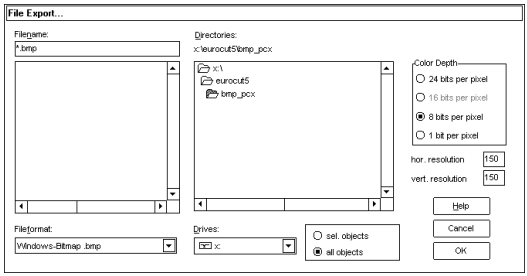


Fig. 133: The Enhanced *Export* Dialog Box

In the right part of the dialog you can see the fields ***Color Depth*** and ***Color Resolution***. These fields will appear in the Export dialog ***only*** when you export a bitmap format.
The original default settings for these fields are: 8 bits per pixel and 150 dpi (dots per inch).

Color Depth

The choice of possibilities in these field depends on the export filter you are using.

The following table shows you the color depths available for each filter:

bits pro pixel

	1	8	16	24	all
TIFF-Bitmap	–	–	–	–	X
JPEG-Bitmap	–	X	X	–	–
Windows-Bitmap	X	X		X	–
Paintbrush	–	–	–	–	X

Fig. 134: Settings for Bitmap Export

Note: *When you import a picture, you can see the size of the uncompressed bitmap in the* ***Bitmap*** *menu,* ***Bitmap Attributes****. If the storage space required for the uncompressed bitmap is higher than the free space on your hard drive, a message to that effect will automatically appear.*

The type of bitmap (e.g. grayscale bitmap) and its color resolution are displayed in the status line.

EPS Export with OPI Links

This export variant has the advantage that your image file is stored separately and not together with the EPS file in one file.
If you use an image several times, it will be physically created only ***once,*** which means a saving of storage space.

Note: *If you select certain objects, only they will be exported, otherwise all.*

2.6 Load Jobs

2.6.1 Load from Job Manager

To facilitate file management, a visual data or ***Job Manager...*** has been integrated in EuroCUT. The job manager can be accessed either via the ***File*** menu or the icon in the EUROSYSTEMS group located in the Windows program manager.

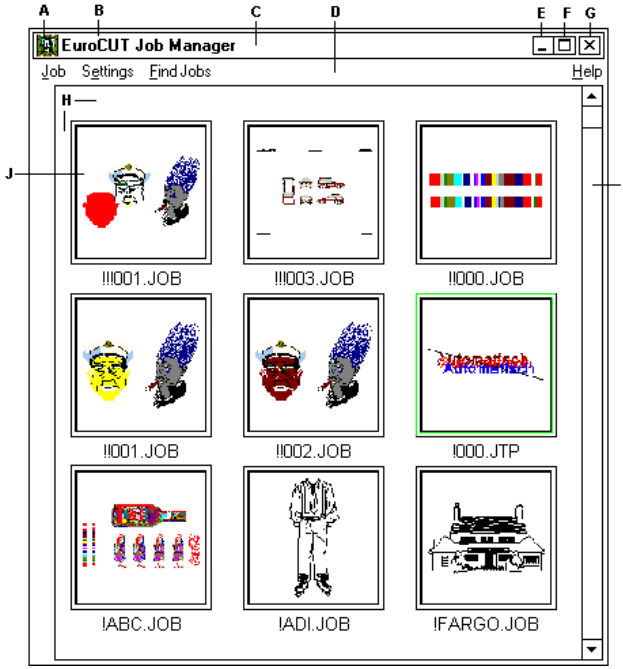
To enable you to work quickly and efficiently, the job manager's most important features can be accessed via the right mouse button or the shortcuts.

The job manager can display images from EuroCUT files (*.JOB) from version 1.5 to version 5.X and EuroCUT images (*.JTP) from version 5 in its preview window.

Note: *EuroCUT images will be displayed with a green frame.*

The job manager allows you to search for jobs in selected directories with question mechanisms which can be edited.

If you create a new job or edit an existing one and save it in the previously entered search path, the job will be displayed in the job manager after updating (F5).
When you start the job manager, the following window appears:



A) Control panel
B) Window title
C) Title line
D) Menu line
E) button
Symbol
F) button
Full Screen
G) button
Quit
H) Preview window
I) Scroll bar
J) Job

Fig. 135: The Job Manager Window

How to Use the Job Manager Window

Various functions are available in the job manager window.

Switching between Full Screen and Part Screen Modes

The job manager window can be displayed over the entire screen or over part of the screen. The job manager is normally started in the ***Full Screen*** mode. You can change to the ***Part Screen*** mode by clicking the icon.
The ***Full Screen*** icon will then appear as follows:

In the ***Part Screen*** mode the size of the window can be changed in either a horizontal or vertical direction. To do this, move the mouse cursor to the outer edge of the job manager window. The cursor will turn into the shape of a horizontal double arrow.

Hold down the left mouse button and change the size of the job manager as you require.

Note: *The* ***Always in Front*** *command is only active in the* ***Part Screen*** *mode.*

It is especially useful to use the ***Part Screen*** mode if you are running EuroCUT at the same time.

If EuroCUT and the job manager are open, you can position the job manager the EuroCUT desktop so that it does not obstruct your work with EuroCUT.
The job manager is not always visible when ***Always in Front*** is activated.

Advantage: Any jobs or job templates images located in the previously set search paths can be dragged to EuroCUT or imported. Thus it is no longer necessary to waste time searching for jobs or opening them via various dialog boxes.

Job or Job Template

You can distinguish between jobs and job templates in two different ways:

1. Job templates are displayed with green frames in the job manager window.
2. Job templates are followed by the extension *.JTP.

Selecting One or Several Jobs

You can select a job or a job template by moving the mouse cursor to the required job or job template and pressing the left mouse button.

Several Jobs Can Be Selected in Two Ways:

1. **Selecting Several Jobs Separately:**
   Hold down the CTRL key and select the required jobs one after another with the left mouse button.

2. **Selecting Several Jobs in a Row:**
   Hold down the SHIFT key and select the first and last jobs required.

Finding a Particular Job in the Job Manager Window

When you have a large number of jobs, it is often difficult to find a particular job quickly. You have two possibilities of doing this in the preview window:

1. Press one of the a-z keys:
   If you press the “a“ key, for example, the first job starting with the letter “a“ will be displayed.

2. Intelligent scroll bar:

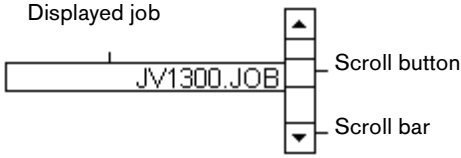


Fig. 136: Scroll Bar Displaying Job Name

Move the mouse cursor to the ***Scroll*** bar (see Fig. 136) and hold down the left mouse button. If you drag the ***Scroll*** bar upwards or downwards, the name of the currently active job will be displayed.

Once you have found the required job, release the mouse button. The selected job will then be displayed as the first in the upper left corner of the preview window.

Updating Job Display

F5

If you have created new jobs in EuroCUT or modified existing ones, your job preview will need updating.

To do this, press the F5 key. The previously entered paths will be searched for new or modified jobs and the “new” jobs will be added to the display in the preview window.

Note: *In the* ***Job Manager*** *dialog box (****Settings*** *menu) you can specify whether the standard paths are to be searched for new jobs at regular intervals which you can determine.*

Advantage: *Your job display is always up-to-date.*

The *Job Manager* Menu

The *Job* Menu

- **Load Jobs to EuroCUT**

SHIFT+ RETURN

This menu item allows you to load jobs directly to EuroCUT. If only the job manager is active, EuroCUT will automatically be started and the selected job opened.

Note: *Jobs can only be loaded to EuroCUT one at a time. This command will not function if several jobs are selected.*

- **Import to EuroCUT**

CTRL+RETUR N

This menu item allows you to import jobs directly to EuroCUT. If only the job manager is active, EuroCUT will automatically be started and the selected job imported.

Note: *It is possible to select several jobs for import to EuroCUT.*

- **Job Info...**

CTRL+I

This command will open the EuroCUT ***Job Info*** dialog box.
See the chapter ***Job Info*** on page 133 ff for further information.

- **Copy**

CTRL+K

This command copies all selected jobs to one directory. The target directory can be selected via a dialog box or created from scratch.

- **Move**

CTRL+M

You can use this command to move all selected jobs to one directory.
Once they have been moved, the jobs will be deleted from the previously entered search paths.

- **Delete**

DEL

This command allows you to delete one or more jobs, after you have been asked if you are sure that you really want to delete the jobs.

Note: *Please make sure that you really no longer require the jobs before you delete them.*

- **Do Not Show Job**

CTRL+H

If you activate this command, all the selected jobs will not longer be displayed in the job manager preview window.

- **Show Job**

CTRL+U

If you activate this command, the jobs which have been removed will reappear in the preview window.

- **Print List**

CTRL+L

A list of all the selected jobs will be printed out.

Example:

30.04.98

File name	Company	Order No.	Created on
!DEMO.JOB	Hinz	1	16.02.1998
BIEBELH2.JOB	Kunz	2	27.02.1998
DB.JOB			17.04.1998
KRAN.JOB			11.02.1998
OPI.JOB			11.02.1998
ORG.JOB			30.04.1998
SKI.JOB			13.02.1998
TEST.JOB			24.04.1998
TEST1.JOB			16.02.1998
TEST3.JOB	Müller		20.02.1998

- **Print Images in Preview Window**

CTRL+B

A preview of all the selected jobs will be printed out.

Example:

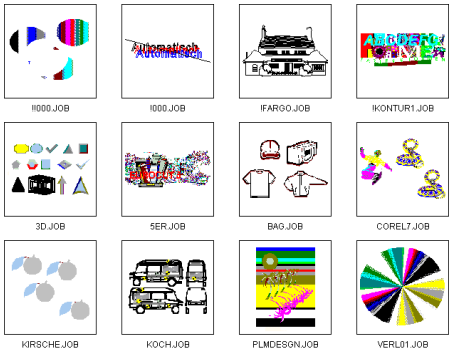


Fig. 137: Example of a Preview Printout

- **Enlarge Images**

This command enlarges the size of the preview images of the jobs displayed.

- **Reduce Images**

This command reduces the size of the preview images of the jobs displayed.

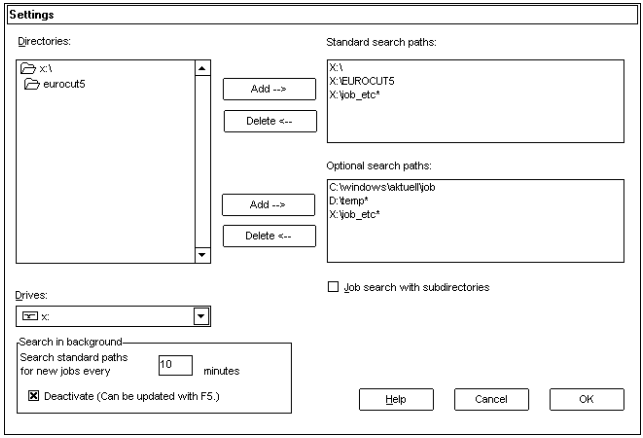
- **Quit**

Use this command to quit the job manager.

The *Settings* Menu

- **Job Manager**

Activating this menu item opens the dialog box for entering the job manager search paths.



+

-

CTRL+Q

Fig. 138: Dialog Box for Entering the Search Paths

In the field titled ***Directory*** you can enter the directories which are to be searched for jobs.
If the directory to be searched is located in another drive, please enter the appropriate drive in the field of the same name.

Once you have entered the directory/drive to be searched, you can import the directory to the list box titled ***Standard Paths*** by clicking the ***Add*** button.

STRG+O

If the directory contains further subdirectories, you can also have them searched. To do this, simply click on ***Job Search with Subdirectories.***

Note: *This command can be activated or deactivated by double-clicking on the right mouse button.*

Note: *The* ***Job Search*** *command cannot be activated unless the appropriate path is selected.*

Directories which are to be searched with their subdirectories will be marked with an asterisk (*) after the search path.
You can use the ***Delete*** button to remove the search paths.

Note: *Only selected paths can be deleted.*

The procedure for setting up the paths in the list box titled ***Optional Search Paths:*** is the same as described above.

The only difference is that the paths set up here will be added to the ***Find Job*** menu.

Advantage: *If you wish to search for jobs in another search path than the current one, you can quickly select the appropriate search path and search for the job(s) required in the* ***Find Job*** *dialog box which will be opened automatically.*
A specific search in interchangeable media or a selective search in various subdirectories can be carried out very rapidly using these menus.

In the field titled ***Search in Background*** you can search the standard paths for new paths and specify a time for the duration of the search.

This option can be turned on and off by using the ***Deactivate*** button.

Tip: *If this option is activated, the standard paths are always up-to-date.*

You can quit the dialog box by clicking ***OK*** and your computer will start searching the search paths you have set up.

- **Font**

STRG+V

In the ***Font*** dialog box you can specify various font attributes, such as font type, style, size, color and display.

- **Window in Front**

When this menu item is active, the ***Job Manager*** window always remains displayed in the front of the screen.
This function is especially useful if you are working in conjunction with EuroCUT. You can position the Job Manager window using the ***Part Screen*** command in such a way that the EuroCUT desktop is available in its entirety and the job manager can also be seen.

STRG+J

Advantage: *Jobs which you wish to edit can be quickly found, opened or imported to EuroCUT.*

The Find Job Menu

- **Search Standard Paths**

Activating this menu item opens the dialog box for the job search in the search paths previously set up.

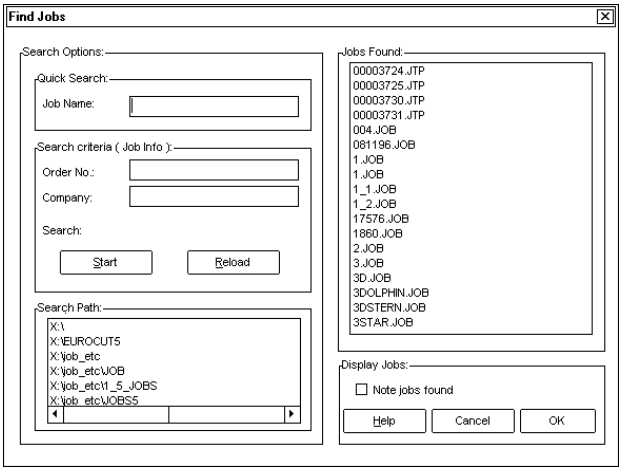


Fig. 139: The *Find Job* Dialog Box

You will find all the relevant fields for finding the job in the left-hand part of the dialog box. The files found will be listed in the filed on the right side titled ***Jobs Found***.

Quick Search/Job Name

Enter any letters/characters of the job name which are known to you in this field.
Note: *The larger the number of letters/characters which you enter in this field, the faster the search will be.*

In addition to the search for the job name, a search can also be made in the ***Search Criteria*** field for information about the job info (***Order No.*** or ***Company***).

Start Search
Click the ***Start*** button to start the job search. If the required file is not found in this search, you can cancel the selection using the *Reload* button and carry out another search with new criteria.

Search Path
This field displays the standard paths set up under ***Job Manager*** in the ***Settings*** menu and the optional paths.

STRG+R

If you activate the ***Note Jobs Found*** option, the result of the last search will be displayed when you restart the ***Job Manager***.

- **Display Jobs in Standard Paths**

If you activate this menu item, all jobs stored in the standard paths you have set up will be displayed.

Note: *In this case the standard paths will not be searched again but the last search saved will be loaded.*

- **The History of the Optional Search Paths**

If you select ***Display Jobs in Standard Paths*** the optional search paths set up in the ***Job Manager*** dialog box will be displayed.

If you select one of these paths, the ***Find Job*** dialog box will automatically be opened with the jobs in the selected path.

Note: *If you activate the* ***Note Jobs Found*** *command in the* ***Find Job*** *dialog box, the jobs found will be displayed in the preview window.*

The *Help* Menu

- **About Finder**

This option gives you further information about the Job Manager (e.g. version no.).

- **Help**

Select this menu point to open the Job Manager Help.

Description of the Right Mouse Button Menu

If you move the mouse cursor to an image in the preview window and click the right mouse button, the following menu will open:

Fig. 140: Functions of the Right Mouse Button

Please see the corresponding menus in the ***Job Manager*** for descriptions of the various menu items.

Non-Active Menu Items

1. If several jobs have been selected:
   Edit job info
   Load to EuroCUT

2. If jobs are not displayed:
   Show jobs

3. If all jobs are displayed:
   Do not Show jobs

The Key Functions in the Job Manager

Key	Function
ESC	Cancel search
DEL	Delete job(s)
F5	Update search paths
A-Z	Move to first job beginning with a certain letter, e.g. A
PGUP	Previous page
PGDN	Enlarge image
-	Reduce image
Right mouse button	Context-sensitive menu
SHIFT +	
RETURN	Load to EuroCUT
Left mouse button	Select jobs from
CTRL +	
B	Print preview images
F	Set up font attributes
H	Do no show job(s)
I	Recall job info
J	Search standard paths
K	Copy job(s)
L	Print list
M	Move job(s)
O	Job manager settings
Q	Quit job manager
R	Show jobs in standard paths
U	Show job(s)
V	Window in front
Left mouse button	Select jobs individually

2.6.2 Loading Without Job Manager

To open files without using the job manager, select ***Open*** in the ***File*** menu.
The following dialog box appears:

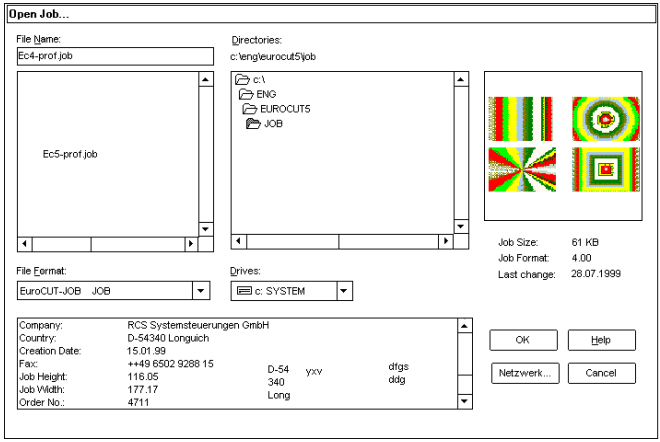


Fig. 141: *File Open* Dialog Box

The ***File Name*** field shows the name of the file you have currently selected. The listing below shows all jobs in EuroCUT format that were saved in the same directory.
The window titled ***Directories*** displays all the directories on your hard drive.

Double-clicking on another directory will open it and all EuroCUT files contained in this directory will be listed on the left.

The ***File Format*** is set by default for EuroCUT file format. With the file format ***Sample Job*** (with JTP extension) you can open jobs which have been stored as samples.
The job name will be displayed as “No Name“.
The ***Drive*** field gives you the option to switch to a different drive, e.g. to a floppy disk or another drive on your computer network.

The preview window on the right shows a preview of the file you have currently selected. The job size and format are shown beneath the preview window and also the date of the latest change.

You can use DEL to delete a selected file directly. You will first be asked if you really wish to delete the file.

2.7 Save Jobs

With the ***Save*** command you can save your current job. If the job was previously saved, its existing file name and search path will be retained, i.e. the previously saved version will merely be updated.

If you are saving a new file which has not previously been saved, the ***Job Info*** dialog box and then the ***Save as...*** dialog box will appear and ask you to enter a file name and a directory/search path.

Note: *You should also select* ***Save as...*** *if you wish to save your current job on a floppy disk. Enter the required disk drive under* ***Drives.***

If you select ***Save Job...,*** the following dialog box will appear:

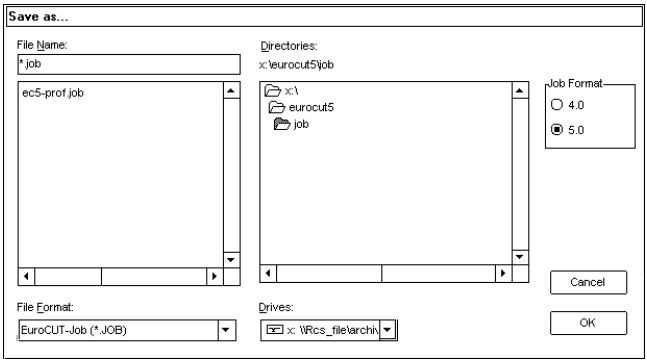


Fig. 142: The *Save Job...* Dialog Box

The ***File Name*** field shows the name of the file you have currently selected. The listing below shows all jobs in EuroCUT format that were saved in the same directory.
The window titled ***Directories*** displays all the directories on your hard drive.
Double-clicking on another directory will open it and all EuroCUT files contained in this directory will be listed on the left.

The ***File Format*** is set by default for EuroCUT file format. With the file format ***Sample Job*** (with JTP extension) you can open jobs which have been stored as samples.
The job name will be displayed as “No Name“.

The ***Drive*** field gives you the option to switch to a different drive, e.g. to a floppy disk or another drive on your computer network.

The preview window on the right shows the format of the job you wish to save..

You can use DEL to delete a selected file directly. You will first be asked if you really wish to delete the file.

The **Preview** window on the right shows a preview of the file you have currently selected. The job size and format are shown below Under ***File Name*** enter the name of the job in the file/job. In the field below all files in EuroCUT job format which have been stored in the selected directory will be displayed.
In the list box on the right titled ***Directories*** you can see all directories stored on your hard disk.
You can go to a directory on your hard disk by clicking on one of the directories and the EuroCUT jobs stored in the directory will be displayed in the file list box on the left of the window.

The ***File Format*** in this dialog box has been previously set to EuroCUT job. With the file format ***Job Template*** (with JTP extension) you can open jobs which have been stored as templates.

Use ***Drives*** to switch to floppy disc/hard disks or network drives.

You can use DEL to delete a file directly. You will first be asked if you really wish to delete the file.

2.8 Job Info

You can open ***Job Info*** in two different ways:

Via the ***Editing*** menu, menu item ***Job Info***.
Automatically when you save a new job.

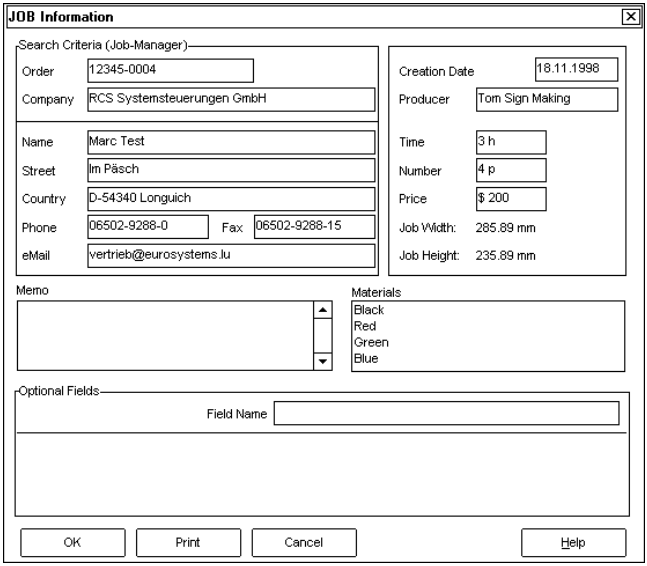


Fig. 143: The *Job Info* Dialog Box

The ***Job Info*** dialog box gives you the possibility of entering relevant information on each file. You can print out this

When the job info is printed, the complete path in which it is filed will be printed as well.

In addition to customer-related information such as ***Order No.***, ***Company Address***, etc. you can also enter data regarding the type of ***Material*** used, ***Duration*** of production, ***Number*** of jobs cut or printed and the ***Price***.

In the ***Memo*** section you can record any other useful comments.

Using the ***Settings*** menu/***Job Info*** you can enlarge the ***Job Info*** by adding any number of boxes.

Note: *Information regarding* ***Materials*** *used will only be recorded automatically if during the design process you were using color layers/palettes that had been defined in the* ***Layer Setup*** *dialog box.*

You can find further information about this in the section **Layer Setup** Dialog Box.

Tip: *The TAB key is the quickest way to switch between the various boxes.*

2.9 Job Calculation

With the aid of the ***Job Calculation*** option you can make preliminary job calculations in a very easy way.
This feature is especially useful for calculating material costs.

In the ***Calculation*** dialog box you can choose between various types of display which combine images or text strings in the same material and with the same font height or type.
For each of these choices you can print out a list on which you then simply have to enter your prices.

Note: *You can also print out the job calculation via the* ***Print*** *dialog box.*

You can open the ***Calculation*** dialog box via the item of the same name in the ***Editing*** menu.

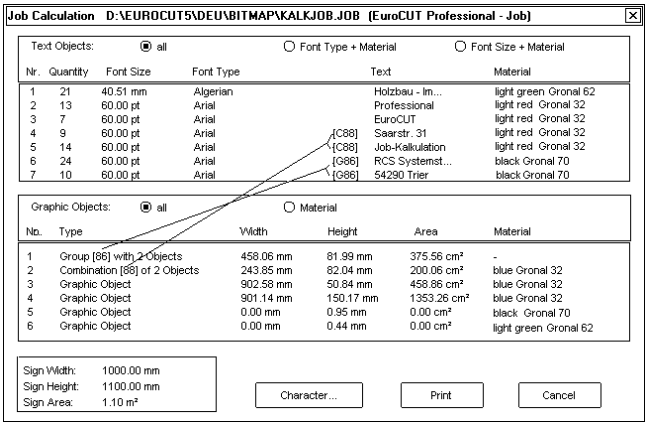

Job Calculation D:\EUROCUT5\DEU\BITMAP\KALKJOB.JOB (EuroCUT Professional - Job)
Text Objects: all Font Type + Material Font Size + Material
Nr. Quantity Font Size Font Type Text Material
1 21 40.51 mm Algerian Holzbau - Im... light green Gronal 62
2 13 60.00 pt Arial Professional light red Gronal 32
3 7 60.00 pt Arial EuroCUT light red Gronal 32
4 9 60.00 pt Arial [C88] Saarstr. 31 light red Gronal 32
5 14 60.00 pt Arial [C88] Job-Kalkulation light red Gronal 32
6 24 60.00 pt Arial [G86] RCS Systemst... black Gronal 70
7 10 60.00 pt Arial [G86] 54290 Trier black Gronal 70
Graphic Objects: all Material
No. Type Width Height Area Material
1 Group [86] with 2 Objects 458.06 mm 81.99 mm 375.56 cm² -
2 Combination [88] of 2 Objects 243.85 mm 82.04 mm 200.06 cm² blue Gronal 32
3 Graphic Object 902.58 mm 50.84 mm 458.86 cm² blue Gronal 32
4 Graphic Object 901.14 mm 150.17 mm 1353.26 cm² blue Gronal 32
5 Graphic Object 0.00 mm 0.95 mm 0.00 cm² black Gronal 70
6 Graphic Object 0.00 mm 0.44 mm 0.00 cm² light green Gronal 62
Sign Width: 1000.00 mm
Sign Height: 1100.00 mm
Sign Area: 1.10 m²
Character...
Print
Cancel

Fig. 144: ***Job Calculation*** **Dialog Box**

The J***ob Calculation*** dialog box is divided into two fields, one for text strings and the other for graphics.

Text Objects

In the upper part of the dialog three options are available:

The *All* Option

All text strings in a job are listed in the order of their cap heights.

The Font Type+Material Option

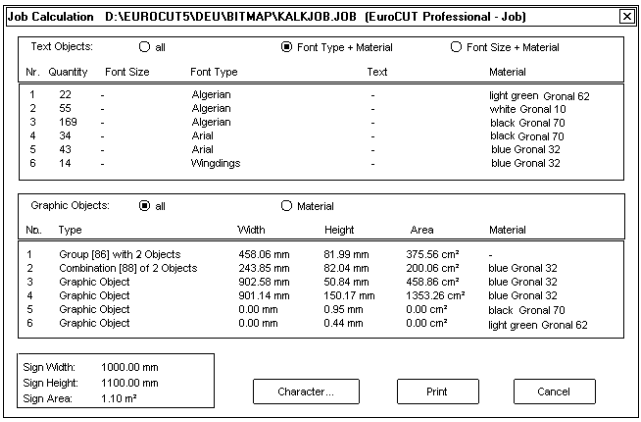

Job Calculation D:\EUROCUT5\DEU\BITMAP\KALKJOB.JOB (EuroCUT Professional - Job)
Text Objects:
all
Font Type + Material
Font Size + Material
Nr. Quantity Font Size Font Type Text Material
1 22 - Algerian - light green Gronal 62
2 55 - Algerian - white Gronal 10
3 169 - Algerian - black Gronal 70
4 34 - Arial - black Gronal 70
5 43 - Arial - blue Gronal 32
6 14 - Wingdings - blue Gronal 32
Graphic Objects:
all
Material
No. Type Width Height Area Material
1 Group [86] with 2 Objects 458.06 mm 81.99 mm 375.56 cm² -
2 Combination [88] of 2 Objects 243.85 mm 82.04 mm 200.06 cm² blue Gronal 32
3 Graphic Object 902.58 mm 50.84 mm 458.86 cm² blue Gronal 32
4 Graphic Object 901.14 mm 150.17 mm 1353.26 cm² blue Gronal 32
5 Graphic Object 0.00 mm 0.95 mm 0.00 cm² black Gronal 70
6 Graphic Object 0.00 mm 0.44 mm 0.00 cm² light green Gronal 62
Sign Width: 1000.00 mm
Sign Height: 1100.00 mm
Sign Area: 1.10 m²
Character...
Print
Cancel

Fig. 145: Job Calculation Dialog in Font Type+Material Mode

This option lists all text strings having the same font and using the same type of material. No entries appear in the columns headed ***Fonts Size*** and ***Text*** when this option is used.

The text ***object*** are sorted alphabetically according to the type of font used.

The Font Size+Material Option

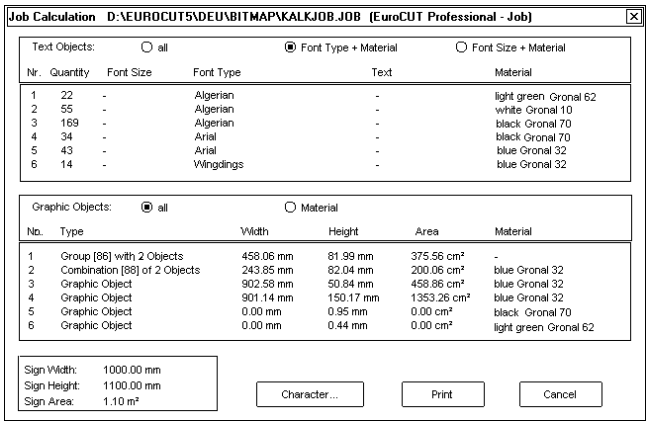

Job Calculation D:\EUROCUT5\DEU\BITMAP\KALKJOB.JOB (EuroCUT Professional - Job)
Text Objects: all Font Type + Material Font Size + Material
Nr. Quantity Font Size Font Type Text Material
1 22 - Algerian - light green Gronal 62
2 55 - Algerian - white Gronal 10
3 169 - Algerian - black Gronal 70
4 34 - Arial - black Gronal 70
5 43 - Arial - blue Gronal 32
6 14 - Wingdings - blue Gronal 32
Graphic Objects: all Material
No. Type Width Height Area Material
1 Group [86] with 2 Objects 458.06 mm 81.99 mm 375.56 cm² -
2 Combination [88] of 2 Objects 243.85 mm 82.04 mm 200.06 cm² blue Gronal 32
3 Graphic Object 902.58 mm 50.84 mm 458.86 cm² blue Gronal 32
4 Graphic Object 901.14 mm 150.17 mm 1353.26 cm² blue Gronal 32
5 Graphic Object 0.00 mm 0.95 mm 0.00 cm² black Gronal 70
6 Graphic Object 0.00 mm 0.44 mm 0.00 cm² light green Gronal 62
Sign Width: 1000.00 mm
Sign Height: 1100.00 mm
Sign Area: 1.10 m²
Character...
Print
Cancel

Fig. 146: Job Calculation Dialog in the Font Size+Material Mode

This option lists all text objects having the same cap height and using the same type of material is to be used. No entries appear in the column titled ***Text*** when this option is used.

The text object are listed in the order of their font sizes.

Graphics

The *All* Option

This window lists all the graphics contained in a particular job.
Two possibilities are available:

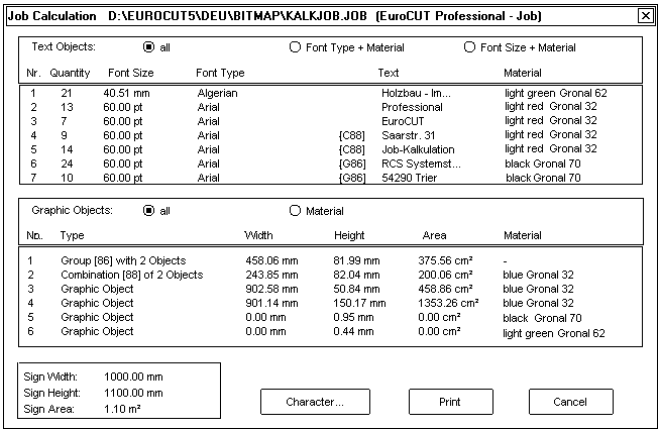

Job Calculation D:\EUROCUT5\DEU\BITMAP\KALKJOB.JOB (EuroCUT Professional - Job)
Text Objects: all Font Type + Material Font Size + Material
Nr. Quantity Font Size Font Type Text Material
1 21 40.51 mm Algerian Holzbau - Im... light green Gronal 62
2 13 60.00 pt Arial Professional light red Gronal 32
3 7 60.00 pt Arial EuroCUT light red Gronal 32
4 9 60.00 pt Arial {C88} Saarstr. 31 light red Gronal 32
5 14 60.00 pt Arial {C88} Job-Kalkulation light red Gronal 32
6 24 60.00 pt Arial {G86} RCS Systemst... black Gronal 70
7 10 60.00 pt Arial {G86} 54290 Trier black Gronal 70
Graphic Objects: all Material
No. Type Width Height Area Material
1 Group [86] with 2 Objects 458.06 mm 81.99 mm 375.56 cm² -
2 Combination [88] of 2 Objects 243.85 mm 82.04 mm 200.06 cm² blue Gronal 32
3 Graphic Object 902.58 mm 50.84 mm 458.86 cm² blue Gronal 32
4 Graphic Object 901.14 mm 150.17 mm 1353.26 cm² blue Gronal 32
5 Graphic Object 0.00 mm 0.95 mm 0.00 cm² black Gronal 70
6 Graphic Object 0.00 mm 0.44 mm 0.00 cm² light green Gronal 62
Sign Width: 1000.00 mm
Sign Height: 1100.00 mm
Sign Area: 1.10 m²
Character...
Print
Cancel

Fig. 147: *Job Calculation* Dialog in the *All* Mode

Sorting the List:

1. Groups
2. Combinations
3. Individual Objects

The *Material* Option

This option lists all images of the same type and using the same type of material.

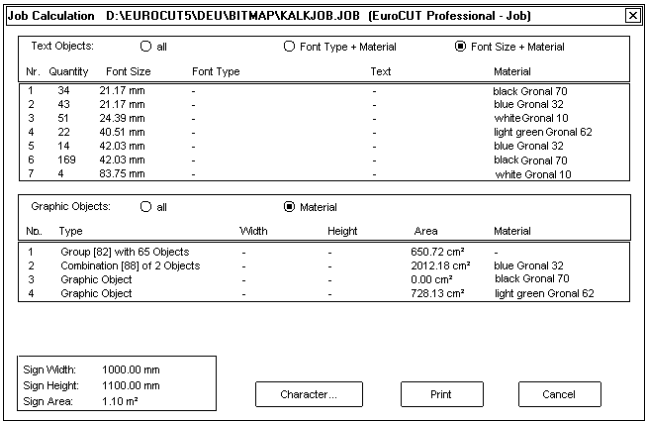

Job Calculation D:\EUROCUT5\DEU\BITMAP\KALKJOB.JOB (EuroCUT Professional - Job)
Text Objects:
all
Font Type + Material
Font Size + Material
Nr. Quantity Font Size Font Type Text Material
1 34 21.17 mm - - black Gronal 70
2 43 21.17 mm - - blue Gronal 32
3 51 24.39 mm - - white Gronal 10
4 22 40.51 mm - - light green Gronal 62
5 14 42.03 mm - - blue Gronal 32
6 169 42.03 mm - - black Gronal 70
7 4 83.75 mm - - white Gronal 10
Graphic Objects:
all
Material
No. Type Width Height Area Material
1 Group [82] with 65 Objects - - 650.72 cm² -
2 Combination [88] of 2 Objects - - 2012.18 cm² blue Gronal 32
3 Graphic Object - - 0.00 cm² black Gronal 70
4 Graphic Object - - 728.13 cm² light green Gronal 62
Sign Width: 1000.00 mm
Sign Height: 1100.00 mm
Sign Area: 1.10 m²
Character...
Print
Cancel

Fig. 148: *Job Calculation* Dialog in the *Material* Mode

In the lower left part of the ***Job Calculation*** dialog box the height and width of the sign and the resulting working area are displayed.

Special Characters

If you click on ***Special Characters*** a dialog box opens which allows you to enter characters which are not to be included in your calculation.

In the ***Other Characters*** field enter any characters you don't want to include in the calculation.

3. Sample Jobs

The sample jobs described in this chapter cover a variety of EuroCUT features and procedures. The first example is described in more detail than the others, since many of the features discussed recur again later.

These jobs have been chosen primarily with the novice user in mind. However, even if you are already familiar with EuroCUT software, you will find valuable information in this chapter.

Particularly if you are new to this design software, follow the examples carefully and try to remember the various menus, commands and their respective functions. You will find that, with just a little practice, working with EuroCUT will become routine.

If at any point you need further clarification, please consult Chapter 4***,*** the ***Reference Section***, which provides detailed information on each menu item.

In no time, you will be able to design and create high-quality graphics more quickly and easily than you ever thought possible. Just jump right in and have fun working through these jobs!
And remember, practice makes perfect!

3.1 Sample Job 1

In this job, you will practice the following features and procedures:

- Text editor functions such as changing fonts, character spacing
- Enlarging areas with the zoom feature
- Edit wireframe and full-color modes
- Converting text to a graphic
- Automatic welding
- Node editing

Task:

Enter the following text string:

EuroCUT 5

To create or edit text in EuroCUT, activate the text editor.

Select the ***T*** icon in your toolbox by clicking on it once. Your mouse cursor will turn into an arrow containing a "T". Move the tip of the arrow to the location in your working area where you would like to create the text and click once at this point. The ***Text Editor*** dialog box appears, overlapping your working area.

In the ***Font*** field, select the font called ***ECBanff.***
Click once on the field and activate the pull-down menu by clicking on the adjacent arrow. Find the font in the list and select it with a double click.

Note*: Instead of scrolling through the font listing, you can also find a font by entering the first letter of its name from the keyboard. The software will automatically go to the first font beginning with that letter.*

ECBanff is a script font. Once you start typing your text string in this font, you will find that the characters are placed exactly as they would be with a regular print font. Consequently, some of the serifs will be spaced too far apart to create a continuous text string. To create a good-looking script with overlapping serifs, we must therefore adjust, i.e. reduce character spacing. In the ***Character Spacing*** field, reduce the default value from 100% to 98%.

In the ***Font size*** field, enter an appropriate height. Now click on the large text entry window in the center of the text editor and begin entering the text, i.e. EuroCUT 5, paying attention to small and capital letters.

Note: *Text attributes can be changed at any time, in any combination. Simply select the text string you wish to edit by highlighting it with your left mouse button. Now make all the necessary changes in the text editor, e.g. switch from normal text to* ***bold*** *or italic.*

Once you are satisfied with the selected text attributes, click on the **OK** button at the bottom right of the text editor. The text string is transferred into your working area.

Note: *You can visually control this process by switching to the* ***Edit Wireframe*** *mode (F9).*

Let's zoom in on the text. In your tool box, click on the **magnifying glass** icon and, from the flyout menu, select the icon depicting a magnifying glass with a plus symbol by clicking on it once. The cursor then changes into a magnifying glass. Position the magnifying glass at the corner of the area you wish to magnify. Click and hold down the mouse button to drag a box around the area. Once you release the mouse button, EuroCUT redraws your screen, zooming in on the selected area. If you wish, you can repeat this procedure for greater enlargement of a particular area.

In the ***Edit Wireframe*** mode you can clearly see the overlap of individual characters, as in the letter sequence "uro" where there is an overlap between the serifs of the "u", "r" and "o". To ultimately get the plotter to cut this sequence clearly, you need to weld the characters together to form a connecting text string.

Note: *Welding converts the text string to a graphic object. This can also be done via the* ***Edit*** *menu,* ***Text to Curves****. After conversion the text string can no longer be edited as text. Make sure that any spelling or typing mistakes are corrected prior to transforming the objects.*

Select the text block and activate the ***Welding*** command, which will convert the selected objects into single object by combining overlapping areas and deleting extra lines. You can access the command either via the ***Tools*** menu or by selecting the welding tool in your tool box. In the welding dialog box, choose ***automatic.*** The individual characters are now welded together, i.e. the overlaps no longer exist.

However, if you look closely , i.e. zoom in on the letters "ur" you will find that the connection is still somewhat rough.

Fig. 149 Serifs after automatic welding

What you see is two nodes that are disaligned. This can easily be corrected with the ***Node Editing*** tool in your tool box. The cursor turns into a black pointer and when you click on the outline of your text string, all nodes or points are displayed in the form of editable squares and tangents.

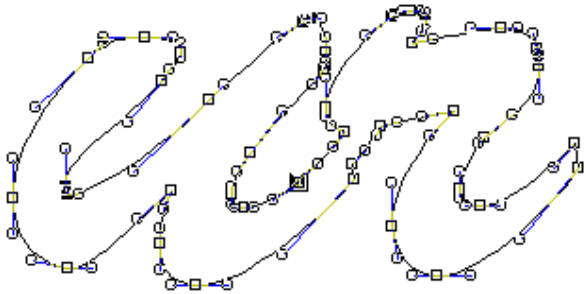


Fig. 150: All Nodes and Tangents are Visible

For this particular job we will simply remove the extra nodes that are causing the irregularity. Zoom in on the area to get a better view. Select the point you wish to delete and press the DEL key or double-click on it to activate the ***Delete*** option in the ***Node Editing*** dialog box. The node disappears and the line is smoothed.

Note: *Please do not confuse nodes and tangential points. Nodes are always displayed as squares; the points at the end of tangents, the tangential points, are always round.*

Press F4 to return to the ***Display All*** mode.
The text string is now ready for cutting.

This sample job was designed to show you how to create text with various attributes, such as font style, fonts size, character spacing, etc. You then optimized the text to obtain a true script image by using the ***Automatic Welding*** function. In addition, you also learned how to smooth lines for best possible output quality by using the node editing tool.

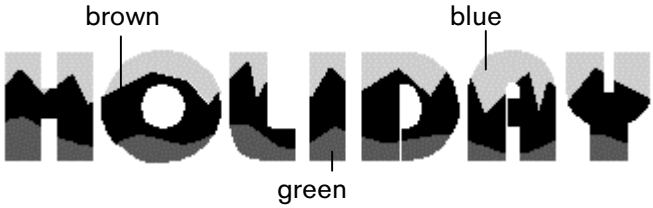
In Sample Job 1 the focus was on automatic welding of fonts.
In Sample Job 2 welding is extended to areas of color.

3.2 Sample Job 2

In this job you will practice the following features and procedures:

- Pencil tool: rectangles, straight lines, curves
- Assign color layer
- Joining objects
- Welding by color

Task:
Create a mountain panorama within the text string "***Holiday***" (brown, blue, green).



Double-click on the shading along the border of the working area (to the right or at the bottom), and enter a size of 400mm x 100mm (about 16 x 4 ins). In the tool box select the ***Pencil Tool Rectangle*** and click on the color blue in the color layer box. Now drag a rectangle over the entire width and half the height of the working area.
Then switch to the ***Pencil Tool Straight Line***. Activate the color brown in the color layer box and draw a ***mountain range*** over the entire width and half the height. Now switch to the ***Pencil Tool Curve*** and click on the color green. Draw the outline of the ***grasslands*** over the entire width and half the height.

Now switch to black and activate the text editor by selecting the ***T*** icon in your tool box.

Font size*:* 60mm (2.36 ins)
Font style: Bauhaus bold
Text*:* HOLIDAY

With the ***Pencil Tool Rectangle*** draw a rectangle around the entire text string so that both the text and the colored areas are completely covered. Select the rectangle and the text string and activate the ***Combine*** function in the ***Design*** menu.

Place the objects in the following order in your working area, overlapping each other, from top to bottom.

Use the ***View*** menu to change the position of the individual objects if necessary.

1st color layer:	blue rectangle
2nd color layer:	brown "mountain range"
3rd color layer:	green "grasslands"
4th color layer:	text string "***Holiday"*** placed over the other objects so that all three colors show through, i.e. so that, after combining the objects, the text string itself has become invisible and the colored areas show a "***mountain panorama***".

Now select all objects by using the shortcut CTRL+A or via the menu item ***Select All*** in the ***Edit*** menu. Activate the ***Welding*** function and select ***By Color***. Finally, select the black object (the rectangle) and remove it with the DEL key.

This job is, admittedly, far more complex and demanding than the previous one. It does, however, provide a vivid illustration of the many design facilities offered by EuroCUT As long as you keep the number of colors within limits, such designs can easily be cut from vinyl. For easier application of the various color layers, simply use the registration marks and the color separation cutting procedures described in Chapter 2, ***Working With EuroCUT***.

3.3 Sample Job 3

In this job you will practice the following features and procedures.:

- Text editor with various tabs (e.g. ***decimal tab***)
- Various types of text justification
- Special characters and symbols

Task:

Recreate the following sign:

RCS Systemsteuerungen GmbH

Im Päsch –Gewerbegebiet- • D-54340 Longuich

Business Hours

Mon.-Fri. 8:30 am - 12:30 pm

Fig. 151: Sign 1000mm x 2000mm (about 40 x 80 ins)

Please don't let the length of instructions for this job deter you. It is a lot simpler than it looks and, we feel, particularly helpful for the novice. In working through it, even the expert may still come across a trick or two.

The sign of the size should be 400mm/about 16 ins (height) by 700mm/about 28 ins (length).
Change the size of your working area accordingly.

Activate the ***T*** icon in the tool box and click at the point where you would like to place the first line of text, i.e. in the upper left-hand corner of your working area.
The ***Text Editor*** dialog box appears on your screen. In the ***Maximum Width*** field you will find that a value of 700mm (about 28 ins) is already entered, which corresponds to the length entered above. This value will determine at which point the text will wrap to the next line.
The line with the company name should be ***bold***. To activate this option, click the ***F*** button under ***Font Styles***. Note that despite the varying number of characters, the first two lines with the company name and address are identical in length. To achieve this, select the ***Forced Block*** option in the ***Justification*** field.

The font for this sign is ***ECSwiss (Helvetica)***.
Now click on the text entry field and type in the first line, i.e. the company name, only. At the end of the line, press the RETURN key. The cursor jumps to the next line. Since the address is not supposed to be bold, you can now click on the ***N*** button under ***Font Styles*** for plain print.

Now type in the address and press return. Because of the ***Forced Block*** option selected earlier, the second line will be drawn out to the same length as the first even though this will only become visible once the transfer is made to the working area.

You have probably been wondering about the black dot in the center of the address line. Even though it is not accessible from the keyboard, you can easily get to it via the ***Special Characters*** option in the text editor. After entering the first part of the address followed by a space, click on the ***Special Characters*** icon. The list of characters available for the chosen font appears. You will notice that the black dot is not among the first 127 characters. Choose characters 128 through 255 to find a selection of dots. Select the one you like by clicking on it once for immediate transfer to the text editor. Enter another space following the dot and then the rest of the address. Once you click on the ***OK*** button, the text will be transferred to your working area.

For the next line regarding ***Business Hours***, set the ***Font size*** to 30mm (1.18 ins) and select ***bold*** as the font style.

The next three lines will require setting three different tabs.

Activate the icon next to the ***Special Characters*** icon. Set the tabs as follows:

180mm (.70 in) decimal, decimal sign: ›: ‹
280mm (1.10 in) centered

Now enter the text as follows:

Mon. - Fri. TAB 9:00 am TAB - TAB 12:30 pm
TAB 13:30 pm TAB - TAB 5:00 pm

Click on ***OK*** to transfer this text block to your working area.

The last step consists of aligning the text lines or blocks with each other and positioning them at the appropriate location in our sign. Use the ***Align*** tool in the tool box.

Select the text blocks with the shortcut CTRL+A.

Use the ***Centered, On Worksheet*** command to align the text blocks on your working area.

3.4 Sample Job 4

In this sample job you will practice the following features and procedures.

- Using text editor and arcing text
- Skewing text
- Rotating text
- Applying the measuring tool

Task:

Recreate the following decal (prerequisite is a digitized circular logo):

This design is based on a pre-existing file of a circular logo or design. Use the ***Measuring*** tool in your toolbox to measure the diameter of the circle. Make a note of the result.

In our example, the circle has a diameter of 375mm (14.76 ins). Open the text editor by selecting the ***T*** icon in the toolbox. Enter the text that is to arc round the upper half of the circle. Then select the **ABC** icon for arcing text.
Enter the following parameters:
Position: *up*, **Justification:** *centered*, **Radius:** *220mm/8.66 ins* (slightly more than half the diameter previously measured), ***Anchor Line*****:** *Baseline on circle*, **Direction:** *right*, ***Option:*** *show circle.*
Now confirm your entries both for the arcing and the text editor. Switch to ***Edit Wireframe*** mode by pressing F9 and place the circle below the text so that it surrounds the logo evenly.

Proceed in similar fashion for the text arcing around the bottom half of the logo. Start by once again selecting the ***T*** icon in the tool box and entering the appropriate text in the text entry field. To emphasize the telephone number, we selected a slightly larger font size and ***bolded*** the last two digits. The second set of arcing attributes is nearly identical to the first, with the following exceptions: ***Position***: down, ***Direction:*** left, ***Anchor Line***: same as above.
Once you have transferred the arced text to your working area, you can place this second text string in such a way that the two circles are right on top of each other. Remember that you can make fine adjustments in the position of an object with the SHIFT key in conjunction with the different cursor (or arrow) keys.
Now select the first text string and the menu item ***Edit Text T*** (in the ***Edit*** menu) or the shortcut CTRL+T. Click on the arcing icon again and turn off the ***Show Circle*** option. Do the same with the second text string.
Finally, cancel the ***Edit Wireframe*** mode by once again pressing F9.

You are done!

There are different ways to add effects to your sign, for instance by first ***skewing*** or ***rotating*** the text.
To try this, enter a text string in the font you wish to use.
Transfer it to your working area. Now select the ***Skew/Rotate*** tool in the tool box and skew the text by 12-15° by double-clicking on the ***Skew*** icon and entering the required number of degrees.
Then select the text again and return to the text editor, where you choose the arcing option. Here you select the ***Retain Skew*** option and confirm your entries for both the arcing and the text editor.
A different effect is achieved by rotating the text by 20-30° and selecting the ***Retain Rotation of Baseline*** option in the arcing dialog box.
Don't be afraid to try out different things, such as varying the radius, degree of skew or rotation, etc. (hfh)

3.5 Sample Job 5

In the sample job you will practice the following features and procedures:

- Envelope function
- Use of guidelines
- Aligning objects
- Assigning color layers
- Switching color layers

Task:

Fig. 152: Enveloped Object

This job is designed to familiarize you with EuroCUT's unique envelope function.

If you currently have anything in your working area, please call up a new screen by selecting ***New*** in the ***File*** menu.
An experienced signmaker could easily create a freehand outline of the bottle used as an envelope in the above design. However, to make this an easily reproducible object for everyone, we will use guidelines for assistance.

Placing Guidelines:
Place the tip of the arrow tool on the vertical ruler located on the right of your screen, press the left mouse button and keep it held down. Slowly move the mouse to the right. At the tip of the cursor you will see a dotted blue line (the guideline). Place this line at the 0 point of the horizontal ruler. You will find that it is extremely difficult to place the line at the exact 0 position.

The reason lies in the fact that EuroCUT works with very fine tolerances, i.e. in a span of 1mm (.0039 in) there are 100 possible positions for placing the line! To make sure that the guideline is indeed on 0, double-click on it with the left mouse button. A dialog box appears, in which you can doublecheck the positions of each guideline you have placed. Should you find a value other 0.00 under ***Position,*** change it accordingly and click on the ***Move*** icon. The line will be relocated at the exact 0 point, i.e. exactly on top of the left margin of your working area.
Now proceed in the same way to place the other guidelines. Or, as an alternative, you may use the following method:
After placing the first guideline at the exact 0 position, double-click on it again. In the ***Guidelines*** dialog box, select ***Vertical*** or ***Horizontal*** and the appropriate value under ***Position***, then click on the ***Add*** button.

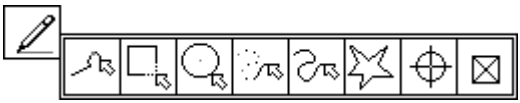
The following are the position values you will require for this job (in mm/in):

Vertical: 0.00mm/0.00 in; 20.00mm/.078 in; 619.00mm/24.37 ins; 625.00mm/ 24.6 ins and
Horizontal: 200.00mm/7.87 ins; 230.00mm/9.05 ins; 300.00mm/11.8 ins; 170.00mm/6.69 ins; 100.00mm/3.93 ins.

Now create the word “PROST” in the text editor. Use the font ***EC Fuyijamaextra*** and type in capital letters. Transfer to your working area by clicking on the ***OK*** button. Make sure the word is selected. Now click on ***Object Attributes...*** in the ***Design*** menu, and enter a width of 300mm (11.8 ins) confirm with ***OK.***

Note*: You can also open the* ***Object Attributes...*** *dialog box via the shortcut G or by double-clicking on the left mouse button.*

With the ***Pencil*** tool



draw a rectangle somewhere in the working area. Should the rectangle be displayed as filled, switch to the ***Edit Wireframe*** mode by pressing F9. The rectangle must be selected. Once again select ***Object Attributes...*** in the ***Design*** menu and enter a width of 310mm (12.20 ins) and a height of 75mm (2.95 ins).

These values exceed the ones used for the text by 10mm (.039 in) both in length and width).

Important: *Upon entering the length, click on non-proportional and then enter the width. Confirm these entries with* ***Add.*** *Now select the work "PROST" and place it in approximately the center of the rectangle. Then use the* ***Framing*** *option to select both objects, i.e. with the left mouse button, click at a point a short distance away from the rectangle and the word. The status line should now show that the two objects have been selected:* ***Selected 2.***

In the ***Design*** menu, select ***Align***. In the ***Alignment*** dialog box, choose the ***Centered*** option both vertically and horizontally, and confirm with ***OK.*** This should place "PROST" exactly in the middle of the rectangle.

Are both objects still selected? Check the status line again to make sure that ***Selected 2*** is still there.

Now move both objects to the vertical guideline at the 0 position. Make sure you place the dotted blue line behind the "C" exactly on the guideline.
Now drag the small black square at the bottom right beside the "S" down to the vertical guideline positioned at 625mm (24.6 ins). By doing so, the two objects should now be scaled to the proper size for our job.

The horizontal guideline at 200 mm (7.87 ins) in on the left ruler should run precisely through the middle one of the three markers behind the "C". Should you have any trouble positioning the objects because the frame keeps jumping to one of the blue guidelines, simply switch off the ***Snap to Guideline*** option in the ***Settings*** menu.

Now that all the preliminary work is done, we can go on to creating the bottle shape.
This is much easier than you might think. Turn the ***Snap to Guideline*** option back on. Make sure both objects are marked. Choose the ***Envelope*** command in the ***Design*** menu. In the flyout menu, activate the ***New Envelope*** option. In the ***Envelope Forms*** dialog box, select the third option, i.e. ***Curves***.
The envelope is calculated and the text and rectangle appear in dotted blue lines on your screen.

You are automatically in the ***Node Editing*** mode (your cursor has been transformed into a black pointer).
Move the square markers to the positions shown below:

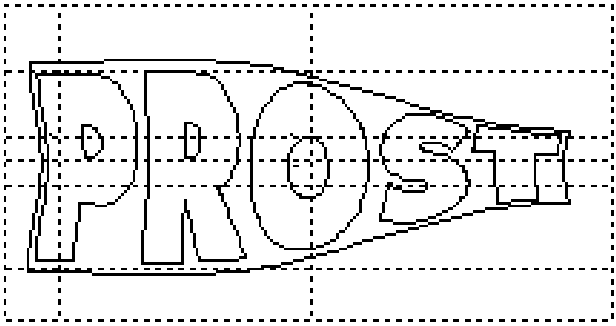


Fig. 153: Bottle in Envelope Mode

It is possible that you may have to move some markers several times, since repositioning one of them may affect the position of another. However, in the end your design should match the illustration. Now press F9 to switch back to the normal editing mode.

If you are satisfied with the shape of the bottle, you can go ahead and lock it in place. To do this, select the ***Lock Envelope*** command under the ***Envelope*** menu item in the ***Design*** menu.

To get a better picture of your design, remove the guidelines. Double-click on any one of them, and in the ***Guideline*** dialog box, activate the ***Delete All*** option.
Now select the word “PROST” inside the bottle and assign it the color white. This is done by double-clicking on the white color bar (#7) in the color layer box. In the ***Edit Wireframe*** mode, white text is displayed with a dotted gray line. The text must be moved to the front by choosing the menu item ***To Front*** in the ***View*** menu. By pressing F9, you can switch from the ***Edit Wireframe*** mode back to full-color display. (JH).

3.6 Sample Job 6

Production - Step by Step

This job is designed to illustrate the steps involved in the actual production of a sign or logo.

It is directed exclusively at the signmaking novice not yet familiar with working with vinyl. If you are an experienced signmaker, skip this job since you will probably not find anything new to you.

Step 1: Client order
Step 2: Designing layout on screen, printing of design
Step 3: Choosing vinyl
Step 4: Preparing plotter for cutting
Step 5: Cutting job
Step 6: Weeding job
Step 7: Quality control
Step 8: Application

Step 1: Client Order

Create a sign measuring 1m x 1.20m (about 39 ins x 47 ins) consisting of a company name and a logo. The sign is for outdoor use and should be made of weather-resistant plastic with a smooth surface. The colors and fonts are specified by the customer in accordance with their corporate identity guidelines. The customer provides a layout suggestion; however, the signmaker is free to make modifications.

Step 2: Designing the Layout

Your first task is to take the customer's idea for the sign and translate it into a digital layout on your screen. Since EuroCUT is designed specifically for the graphics industry, you can make the design on your screen correspond exactly to your output at a scale of 1:1. The maximum size of the working area is 30m x 30m (about 10 ft x 10 ft). With the Adobe type manager, any digitally available type 1 font can be used.
In the presence of your customer, you can create the design in the computer and output a final version to your color printer.

This makes it possible for your customer to actively participate in the design process by providing direct input, making any necessary changes, etc. And if you have enhanced your system with EuroFACT, you can then print out an offer immediately upon finalizing the layout.

Step 3: Choosing the Vinyl

The choice of vinyl depends on the specific application of the sign. For long-term exterior signage (as in this example) only UV-resistant vinyl should be used to avoid problems with premature fading. You should use a type of vinyl specifically manufactured for outdoor use. The best material for such applications is high-performance vinyl guaranteed to last five to seven years or more. You may also consider some type of reflective vinyl for better visibility at night. You will find that, apart from the recommendations given by the vinyl manufacturers, your own experience will provide the best guidance in selecting appropriate vinyl for each application.

Step 4: Preparing the Plotter

Load the vinyl you have chosen in your plotter. If you need to cut color separations, EuroCUT can help you do this quite easily. You simply activate one of the multicolor bars in the ***Cutting*** dialog box and load the vinyl that corresponds to the first color in the bar. To be able to apply each color more easily, be sure to place registration marks in the design. This option can be found in the ***Draw*** flyout menu (located in the ***Design*** menu). In the EuroCUT cutting dialog box, the only entries that still need to be made are the specific values for the pressure, speed and material width applicable for the vinyl you are using (and even these values may already have come up if they were previously in the database).

Step 5: Cutting the Job

After transferring the data for each color layer, EuroCUT displays a blinking question mark at the bottom left of the screen. Double-clicking on this question mark opens the ***Job Control*** dialog box in which you can activate the next color, deactivate a color or cancel the entire job. If, for your initial experimentation with the plotter, it appears too risky to start cutting immediately from vinyl, try using the ***Plot*** function. Insert the ***Plotting*** (pen) module in the cutting head rather than the ***Cutting*** (knife) module. Consult your plotter manual as to how exactly this done on your particular plotter.

Load paper instead of vinyl. With this much less expensive medium, you can experiment and practice until you feel comfortable enough to cut your first job from vinyl.

Step 6: Weeding

Weeding means the manual stripping or removal of excess vinyl around the text or graphics cut by the plotter. For best results, use a large table, adequate lighting, an exacto-knife and tweezers for weeding small pieces.
Inexperienced weeders should restrict themselves to smaller areas. Additional vertical or horizontal cuts with an exacto-knife may also help to keep the excess material within manageable limits and make the weeding process much easier.

Step 7: Quality Control

Once your job has been weeded, you can best judge the quality of the cut. A number of factors can determine cut quality: the type of plotter used (equipped with a tangential or a drag knife), the knife setting (appropriate pressure and depth), the blade quality and sharpness, the type of vinyl used, the flatness of the material (how it is loaded in the plotter), the quality of the font, the output speed, and even the weeding. While each one of these factors can have a negative impact on the quality, the maximum quality is, of course, determined by the capabilities of your plotter.
Thus, a plotter equipped with a drag knife will never achieve the cutting quality and precision of a plotter with a tangentially controlled knife. And not all drag-knife plotters are the same either; there can be substantial differences depending on the manufacturer and the price. Getting competent advice is absolutely essential prior to making your plotter purchase.

Step 8: Application

The final step in sign production consists of applying the vinyl graphics to the sign face or substrate. This process is a rather tricky one and requires some expertise regarding the adhesive qualities of different substrates. In some cases, surface preparation might be required for proper, lasting adhesion (e.g. degreasing).

As is the case with many things, experience is the key to success!

4. Reference Section

Menu items in chronological order:

4.1 The *File* Menu

• The *New...*Command

CTRL+N

The ***New*** command is used to create a new design or job.

• The *New from Template* Command

This command is used to save jobs as templates (JTP extension). These templates can be reloaded via ***File/Open*** or ***File/New from Template***. “No Name” is displayed as job name.

• The *Job Manager...*Command

With the ***Job Manager*** command you activate the file manager (finder) integrated in EuroCUT. Please see Section 2.6.1 for further details.

• The *Open...*Command

CTRL+L

The ***Open*** command is used to retrieve /open existing jobs, in the EuroCUT format, either from your hard drive or a diskette. The file is loaded on to your screen, i.e. into your working area, and can then be further modified or edited.
In addition, you can delete jobs. You will first be asked if you really want to delete the job.

• The *Final Version* Command

When a job is loaded, a backup copy is made in EuroCUT with the name AUTOSAVE BAK.
With this command you can retrieve the original version of the job which existed before loading.

• The *Save* Command

CTRL+S

This command is used to save the job you have been working on. If you have previously saved the job, the file name and directory under which it was saved will be retained. The previous version is overwritten and will no longer be retrievable.

If you are saving a job that has not yet been saved, EuroCUT will automatically activate the ***Save as...*** command when you click on ***Save***. Here you will be able to enter a file name and an appropriate directory for this job.

• The *Save As...* Command

CTRL+Q

This command is used to save a new job under a file name and in a directory the user is free to choose. You may also use the ***Save As...*** command to change the name of an existing file. This is particularly useful if you have used or intend to use an existing design to create a new one but would like to retain the older version without overwriting it.

You can also use this command to save a job on to diskette. Simply specify the appropriate disk drive in the dialog box.

• The *Online Service...*Command

You can use this command to establish a direct connection to the support pages of EUROSYSTEMS S.à.r.l. and the general distributor RCS Systemsteuerungen GmbH.

Note: *If you have not installed a browser, a text file will be displayed informing you what you have to do to use the advantages of the Online Service.*

Once you have registered with RCS-ONLINE, additional facilities are available to you:

- You can make use of our file service.
- You have the possibility of importing the latest updates or demo versions of our software free of charge.
- You don't have to give your address every time you order from our Online Shop.
- Specialist firms and distributors have access to the Business Center.

  If you want to download files for which there is a charge, your account with RCS-ONLINE must be in credit.

• The *Import* Command

CTRL+I

With this command, you can import files that are in a format other than EuroCUT.JOB.

The following filters are integrated in EuroCUT:

AI Illustrator	EuroPhotoCUT	Mustervorlage JTP
AI/EPS Import	HPGL Plot-Dateien	Paintbrush .pcx
Adobe Photoshop 3.0	JPEG / LEAD .cmp	TARGA-Bitmap .tga
CMX Importfilter	JPEG-Bitmap .jpg	TIFF-Bitmap .tif
CorelDRAW-Paletten	Kodak Photo CD .pcd	Text-Dateien
DXF AutoCAD	LAY Converter 1	URW Signus Ikarus
EPS inc. TIFF .eps	MacPaint .mac	Windows-Bitmap .bmp
EPS,AI PostScript	MacPict .pct	
EuroCUT-JOB JOB	Metafile .wmf	

• The *Export* Command

CTRL+E

If you wish to use a EuroCUT.JOB in a different graphics program, the file will have to be converted to the appropriate format.

The following filters are integrated in EuroCUT.

AI (Corel6/7)	HPGL Export
CMX (Corel6/7/8)	JPEG-Bitmap .jpg
DXF Export	Paintbrush .pcx
EPS (OPI)	TIFF-Bitmap .tif
EPS 1:1 PostScript	URW Signus Ikarus
EPS Export	Windows-Bitmap .bmp

• The *Print* Command

CTRL+P

With this command, you send the job you working on to the standard printer in any size you require (tiling).

• The *Cut/Plot* Command

S

This command activates the ***cutting/plotting/routing*** module for outputting your file to the plotter.

• The *Quit* Command

CTRL+Q

With this command you exit EuroCUT and return to the Windows environment. If you have not yet saved the EuroCUT file you were working on, you will be prompted to do so now.

• The *Job Recall* Function

This function makes it very easy for you to load any of the last four EuroCUT files you were working on, without having to go through the entire ***Open File*** routine.

At the end of the ***File*** menu, you will see the names of these files displayed. Simply click on the one you wish to open and the selected job will be loaded immediately into your working area.

4.2 The *Edit* Menu

• The *Undo* Command

F5

This command makes it possible for you to undo or reverse the last few editing procedures you have completed. The standard or default setting allows for the last five steps to be reversed. You can increase this number in the ***Settings*** menu under ***Setup.*** The default value is designed for a computer with 8 megabytes of RAM. Only if your computer is equipped with more RAM do we advise an increase in the number or reversible steps. The maximum permitted is 100.

• The *Redo* Command

F6

This command is the opposite of ***Undo.*** It restores the editing functions you have previously chosen to undo.

• The *Cut* Command

CTRL+X

With this command you can remove objects from your working area and temporarily store them on your computer's clipboard. This is a very convenient way to insert an object at a different position, in a different file or even in a different program.

Note: *The amount of data that can be stored on the clipboard is limited. If the space is insufficient for the text or object you intended to move, please use the* ***Export*** *command to transfer the data.*

• The *Copy* Command

CTRL+C

With this command you can store items on the clipboard without having them removed from your working area.

• The *Paste* Command

CTRL+V

With this command you restore or insert items from the clipboard into your job. When you activate this command, the cursor turns into a right angle containing the word ***Insert .*** Point the tip of the right angle at the exact location where you would like to insert the object and press the left mouse button to execute the ***Paste*** command.

• The *Paste Contents*... Command

This command lets you import images to EuroCUT via the clipboard.

Note: *This command is not active when objects are copied in EuroCUT.*

• The *Select All* Command

CTRL+A

With this command you can simultaneously select all objects in your current job, i.e. all objects **inside** as well as **outside** your working area. The selected objects can then be grouped, combined or moved.

• The *Delete* Command

DEL

On your keyboard you will find a key labeled DEL or delete. The DELETE key is used to permanently remove selected objects from your design. The objects that you want to remove have to be selected first.

• The *Duplicate* Command

CTRL+D

This command is used to duplicate selected objects in your design. Click with your left mouse button on the ***Duplicate*** command or activate it via the CTRL+D shortcut. The previously selected object or objects will now be duplicated. The positioning of the duplicated objects occurs according to the values entered in the ***Setup*** dialog box accessible from the ***Settings*** menu.

Note: *You can also duplicate objects in your design simply by using your mouse. Select the object(s) first. Drag the object(s) to the location where you would like to have it/them duplicated. Without releasing the mouse button, click once with the other mouse button and the selected object will be automatically duplicated.*

• The *Edit Text ...* Command

CTRL+T

With this menu item, you activate the EuroCUT text editor

Note: *If you have converted your text to curves, you will no longer be able to modify it with the text editor.*

The ***Text to Curves*** *command converts the text string into a graphic. By using the* ***Undo*** *function, you can reverse this conversion and proceed with editing the text.*

• The *Text to Curves* Command

CTRL+K

EuroCUT uses vector or outline fonts. These fonts allow stepless enlarging and rotating, since each character is defined as a sequence of vectors. This command converts the text into a graphic, which makes it possible for you to manipulate the shape of the character or text string. Once the text is converted to curves, it can no longer be modified with the text editor, e.g. you can no longer correct spelling errors.

• The *Text to Lines* Command

SHIFT+Z

If you have composed a text of more than one line in the text editor, you can separate this block of text into individual lines once it has been transferred to your working area. This makes it possible for you to work with each line separately, i.e. to give it new text attributes, move it to a different location in your working area, etc.

Note: *If you select all line the* CTRL+A *shortcut and have previously assigned text editing functions to the right mouse button, you can edit each individual line of a text simply by pressing the right mouse button.*

• The *Job Info...* Command

The ***Job Info*** command allows you to record additional information relating to each job. The information can be printed out and used for invoicing etc.

Besides information such as ***Order No.*** and ***Company Address,*** the ***Job Info*** gives details of the material used. You can use the ***Memo*** field to record other information in note form.

• The *Job Calculation...* Command

With the aid of the ***Job Calculation*** command you can make preliminary calculations extremely easily. It is particularly useful for calculating the costs of material used.

In the ***Calculation*** dialog box you can switch between various display modes showing graphics or text objects of the same material, same font height or font type. For each of these options you can print out a list which you can simply fill in with your prices.

Note: *The job calculation can also be printed out via the* ***Print*** *dialog box.*

• The *Color Layer Box* Command...

This command opens the ***Layer Settings*** dialog box which allows you to color objects, specify vinyl colors, select objects of the same vinyl color, make layers invisible, lock layers, etc.

• The *Ready to Cut* ... Command

This command can be used to prepare an object with a specified line thickness or fill for cutting.

• Outline

An outline is added to a line whose thickness has previously been defined.

• Gradient Fill

A gradient fill which has previously been created is divided into a specified number of steps (see Chapter 2.2.6) and each step is provided with a outline.

• Both

An outline is added both to a line whose thickness has previously been defined and to the steps of a gradient fill which has previously been defined.

4.3 The *Design* Menu

• The *Object Attributes ...* Dialog Box

G

The ***Objects Attributes*** dialog box is activated by double-clicking on one of the eight control squares that surround an object when it is selected or by simply pressing G on the keyboard.

In this dialog box you can change the parameters for the ***size*** or ***position*** and the ***skew*** or ***rotation*** of objects. It also allows you to enter the number of copies for ***duplicating*** objects in x/y direction and the x/y offsets.

Thus, the ***Object Attributes...*** dialog box combines some of the most frequently used functions in one window, which considerably facilitates editing.

• The *Rotate Axis* Command

A

This command is used to rotate objects by 90° in a counter-clockwise direction.

You will need to use this command whenever you wish to adjust your objects quickly to the running direction of the vinyl without having to use the ***Rotate*** function.

Note: *This command can also be performed by pressing the A key.*

• The *Horizontal Mirror* Command

X

This command mirrors a selected object on an imaginary horizontal axis through its center point. If you select several objects, they will be mirrored around an imaginary horizontal axis located in the middle of the selection box indicated by the eight black squares. If you have not selected any objects, your entire design (all objects) will be mirrored horizontally.

• The *Vertical Mirror* Command

Y

This command mirrors a selected object on an imaginary vertical axis through its center point. If you select several objects, they will be mirrored around an imaginary vertical axis located in the middle of the selection box indicated by the eight black squares. If

you have not selected any objects, your entire design (all objects) will be mirrored vertically.

CTRL+G

• The *Group* Command

With this command you can group several objects so they can be selected and manipulated as a single object. This is particularly useful when you are trying to move several objects at once without changing their positions relative to each other. Be sure to select the objects first, then activate the ***Group*** command and move this newly formed group of objects to the desired location. It is now no longer possible to manipulate the objects within the group individually.
If you need to do so, please see the ***Ungroup*** command described below.

Note: *Grouped objects cannot be edited with the node-editing tool. You must first ungroup the objects to be able to manipulate any nodes. Grouped objects can easily be distinguished from ungrouped ones by their dotted blue outlines.*

CTRL+B

• The *Ungroup* Command

This command is used to reverse the ***Group*** command, i.e. it separates objects that were previously grouped. The objects can now be selected and manipulated as individual objects. Remember that you must first select the group before ungrouping it.

SHIFT+K

• The *Combine* Command

Similar to the ***Group*** command, the ***Combine*** command also converts several individual objects into one single object. The main difference is that with the ***Combine*** command EuroCUT ceases to look at these objects as a group of individual objects with their own set of attributes, such as color layers, etc. Consider the following example:

You have created two squares with different color layers, one somewhat smaller than the other. Now you place the smaller square in the center of the larger one. Select both objects and activate ***Combine*** command. The two squares are combined into a single object with only one color layer (the one assigned to the larger square). The larger square is recognized as the outer contour, while the smaller square inside forms the inner contour of the new object. The space between the two contours is filled

with the color selected from the layer box. A hole the size of the smaller square remains in the center.

SHIFT+L

• The *Break Apart* Command

With this command you reverse the ***Combine*** command described above, i.e. the objects that were previously combined can once again be selected and manipulated as individual objects.

• The *Fill* Command

You can use this command to provide vector objects and text blocks with fills.

• The *Without* Command

This command removes all fills or bitmaps from selected objects. Only the wireframes remain in the previously assigned colors.

• The *Gradient Fill ...* Command

This command opens a dialog box in which you can specify the appearance of the gradient fills, closed curves, text objects or combinations.

• The *Bitmap...* Command

This command opens a dialog box which can be used to fill objects with bitmaps.
There are a variety of options available to you for editing bitmaps fills.

• The *Layer Color...* Command

With this command you can remove all fills and the object is displayed in the layer color in which it was originally created.

• The *Wireframe* Command

This command can be used to provide objects with pencil attributes, to create hairlines and remove pencil attributes.

• The *Without* Command

This command removes all pencil attributes from the selected object and displays it in the layer color in which it was originally created.

• The *Hairline* Command

This command provides the selected object with a hairline in the currently active layer color.

• The Pencil *Attributes* Command

You can use this command to design the pencil for outlining curves, combinations or text objects. Outline pencils can be used for drawing object contours in the ***Full Screen*** or ***Preview*** mode.

Note: *In the wireframe mode (F9) the pencil attributes do not change the appearance of the objects. In this mode the contours of the objects are drawn with a simple outline in the layer color.*

• The *Mask Bitmap* Command

This command fills an object or a combination with an underlying bitmap.
First move the object to the required location above the bitmap. Then select the bitmap and the object to be filled and click ***Mask Bitmap.***

• The *Perspective* Command

This command is used to create special visual effects. Different perspectives can be created based on one or two points. With single-point perspectives, a three-dimensional effect is created by shortening the object. This makes the shorter side appear to be in the background. By shortening two sides, the objects can be further distorted.

• New Perspective

Once you have activated the ***Perspective*** command, the selected object is given a frame with handles for you to manipulate. Select any one of these handles (this will make the marker appear black to indicate selection) and drag it to the desired location to change the perspective. As long as the ***Perspective*** option is active, the objects selected for this editing function will appear with a dotted blue outline.
Other functions, such as ***Envelope***, cannot be activated as long as your objects are in the ***Perspective*** mode. To see whether the new perspective you have created is satisfactory, use the ***Lock Perspective*** command described below. All objects are now

released from the perspective mode and can be further edited as desired.

Note: *By pressing the SPACE BAR once or with the node-editing tool, the perspective can be further modified. However, once you have activated the* ***Lock Perspective*** *command, this is no longer possible.*

- **Lock Perspective**

Once you decide that the perspective you have chosen is acceptable, activate this command to continue editing the objects in the ***Perspective*** group.

- **Cancel Perspective**

This command restores the objects to their original perspective, i.e. to the state prior to your changing the perspective or to the most recently locked perspective. You may also use the ***Undo*** command to reverse a perspective.

• The *Envelope* Command

With this command you can also create some very interesting effects. By changing the shape of an envelope that surrounds previously selected objects, you simultaneously distort its contents, no matter whether they are text or graphics or a combination of both. It is easiest to imagine the envelope and its contents as a rubbery mass, capable of distortion in any possible direction. There are four available envelope options. The first three (straight line, arc, curve) are basic options that can be applied to one or more of your object(s). The distortion created by these options remains regular. The fourth option gives you complete freedom to distort the envelope to any shape imaginable.

Note: *By pressing the SHIFT key, you can select several handles and them move them simultaneously.*

The same can be achieved with the ***Framing*** function,, i.e. by pulling a frame around the handles you wish to select. Selected handles or markers turn black to distinguish them from non-selected handles.

- **New Envelope**

With this option you can assign selected objects an additional envelope, which offers even greater creative possibilities.

- **Lock Envelope**

Select this option when you are satisfied with the shape of the envelope and would like to continue editing the objects it contains.

• Cancel Envelope

This command restores the objects to their original state, i.e. prior to your adding and distorting an envelope or to the most recently locked envelope. You may also use ***Undo*** to reverse the ***Envelope*** command.

• The *Block Shadow* Command

With this command you can create simple shadows for text or graphics. You can specify horizontal or vertical offsets for the shadow by entering specific values. The layer color for the shadow can be selected from the list field. With this command, text is automatically converted into curves, and all perspectives and envelopes are locked. If you select more than one object, a separate shadow is calculated for each one unless it is part of a combination of objects (see the ***Combine*** command described earlier). Combinations of objects are automatically welded, i.e. both the original objects as well as their corresponding shadows. The shadows of combined objects are combined as well, and the shadows of all selected objects are automatically grouped.

• The *Drawing Tools*

When you select this function, a flyout menu appears which combines all basic EuroCUT tools for designing graphics.
All the tools can be activated via the toolbox or in the ***Object*** menu, ***Draw.***

• The *Line* Mode

The ***Line*** command activates the mode for drawing straight lines. The cursor takes on the shape of a cross-hair with a vector beside it.

There are two possibilities for drawing lines:

1. "Closed" lines
You can create *closed* lines by holding down the left mouse button while drawing. You end the line by releasing the left mouse button.
When the mouse cursor is located above the end of a line, this point is emphasized and the mouse cursor changes shape. The point is initialized if you click once on it with the left mouse button. You can continue drawing in one of the following four modes: ***Draw, Arc, Digi, Freehand***.

2. "Open" lines

You can create open lines by clicking once on the left mouse button before drawing the lines. After that you can draw the line as you wish. If you click again on the left mouse button, this part line is ended and a new one can be drawn. You quit this mode by double-clicking on the left mouse button.

When the mouse cursor is located above the end of a line, this point is emphasized and the mouse cursor changes shape. The point is initialized if you click once on it with the left mouse button. You can continue drawing in one of the following four modes: ***Draw, Arc, Digi, Freehand.***

Note: *EuroCUT provides the following two design aids for drawing straight lines. By pressing the SHIFT key while moving from the starting point to the end point of your line, you can draw lines that are either perfectly horizontal or vertical, depending on the direction in which you are moving. If you press the CTRL key while drawing the line, the angle of the line is limited to 15° increments to the border of your working area, i.e. to 15°, 30°, 45°, etc.*

• The *Arc* Mode

You activate the ***Arc*** mode by clicking on the right mouse key in the ***Line*** mode and selecting the ***Arc*** command.
When drawing an arc, after you have fixed the second point of the curve, the curve will be drawn through the first, second and current cursor points. A click on the left mouse button creates the arc.

When the mouse cursor is located above the end of an arc, this point is emphasized and the mouse cursor changes shape. The point is initialized if you click once on it with the left mouse button. You can continue drawing in one of the following four modes: ***Draw, Arc, Digi, Freehand.***

• The *Rectangle* Mode

This command is used to activate the rectangle-drawing mode. You may also select this mode by clicking on the ***Pencil*** icon in your tool box and choosing the ***Rectangle*** icon in the flyout box. Once you have selected it, move your cursor (which has taken on the shape of a cross-hair with a small rectangle beside it) to any of the corners of the rectangle you intend to draw.

Press your left mouse button, and continue to hold it down. Draw a rectangle by moving the cursor to the diagonally opposed corner. Once you release the mouse button, the rectangle is drawn for you.

Note: *EuroCUT provides the following design aids for drawing rectangles. By pressing the SHIFT key while drawing the rectangle, the selected point of origin of your rectangle will actually be its center point. If you press the CTRL key while drawing the rectangle, EuroCUT will draw a perfect* ***square.*** *If you press both the SHIFT and the CTRL key simultaneously while drawing the rectangle, EuroCUT will draw a square that is perfectly centered. The status of these keys (pressed or unpressed) while releasing the left mouse button determines how the square will be drawn.*

• The *Circle* Mode

This command is used to activate the ***Circle*** and ***Ellipse*** modes. You may also select this mode by clicking on the ***Pencil*** icon in your tool box and choosing the circle icon in the flyout box.
In this mode you pull up a box into which the ellipse is fitted. Thus, first click with the mouse on one corner of the box.

Note*: The starting point on which you click to begin the drawing procedure is not on the ellipse but constitutes the corner point of an imaginary box containing the circle or ellipse. By pressing the SHIFT key while dragging the circle or ellipse, the selected point of origin will actually be the center point of the circle/ellipse. If you press the CTRL key while opening the box, EuroCUT will draw a circle. If you press both the SHIFT and the CTRL keys simultaneously while dragging the circle/ellipse, EuroCUT will draw a circle that is perfectly centered.*

• The Digitizing Mode

This command activates the mode for postdigitizing bitmaps. The processing of your images will be considerably easier if you simply switch between the ***Line, Arc, Digi*** or ***Freehand*** modes by clicking on the right mouse button, pressing the arrow keys on your keyboard or via the toolbox.

Arrow key functions:	left	→ ***Line*** mode
	right	→ ***Arc*** mode
	up	→ ***Freehand*** mode
	down	→ ***Digitizing*** mode

If you have drawn open contours, you can close them by clicking on the right mouse button and selecting ***Close.***

Note: *Using this method, you can close all objects drawn regardless of the distance between the starting point of the object first drawn and the end point of the object last drawn.*

Another possibility of closing open contours you have drawn is as follows:

Draw an open object. Using the mouse, move the end point of the object last drawn near to the starting point of the object first drawn.

You will see that the mouse cursor has changed its shape, If you release the mouse at this point, the contour will be closed.

When the mouse cursor is located above the end of a digi curve/line, this point is emphasized and the mouse cursor changes shape. The point is initialized if you click once on it with the left mouse button. . You can continue drawing in one of the following four modes: ***Draw, Arc, Digi, Freehand.***

- **The Freehand Drawing Mode**

This command activates the mode for drawing lines, curves or objects in any way you wish.
Hold down the mouse button and create the object of your choice. Release the mouse button when the object is finished.
When the mouse cursor is located above the end of a digi curve/line, this point is emphasized and the mouse cursor changes shape. The point is initialized if you click once on it with the left mouse button.. You can continue drawing in one of the following four modes: ***Draw, Arc, Digi, Freehand.***

- **Geometric Shapes...**

With this command you can activate the mode for drawing polygons and other symmetric objects such as stars.

- ***Register Marks***

With this option you can place register marks in your design, which will later facilitate alignment application of the various layers in a color-separated job. When you select this command, the cursor turns into a square with a cross-hair on it. Place the

cursor at the exact location where you wish to have register mark cut out and click on it with your left mouse button.
A register mark is inserted automatically at that location. Repeat this procedure for additional register marks. All marks will be cut in each layer, regardless of layer color or order.

- ***Perforation Mark/Drill Hole***

With this option you can place perforation marks or drill holes in your design. When you select this command, the cursor turns into a circle with a cross-hair over it. Place the cursor at the exact location where you wish to have a hole drilled and click on it with your left mouse button. A perforation mark is inserted automatically at that location. Repeat this procedure for additional perforations. The holes will be cut in each layer, regardless of layer color or order.

Note: *This option is designed specifically for EuroCUT users who have a flatbed plotter with routing capabilities.*

- **The *Align* Command**

With this command you can align two or more selected objects. They can be aligned horizontally or vertically. The objects can be centered or aligned on a particular side, at the top or at the bottom. If you choose to center them, they can be centered both horizontally and vertically. You can also have the objects arranged at equal distances from each other..

Note: *You must select a minimum of two objects to be able to activate this command.*

- ***Clockwise Rotation of Objects***

This command is used to have the rotation for selected objects set clockwise.

Note: *This option is applicable only in conjunction with the EuroENGRAVE routing/engraving module.*

- ***Counter-Clockwise Rotation of Objects***

This command is used to have the rotation for selected objects set counter-clockwise.

Note: *This option is applicable only in conjunction with the EuroENGRAVE routing/engraving module.*

• The *Close Contour* Command .

This command is used to close the contour of a selected object.
Note: *The status line at the bottom of your working area indicates whether or not your design contains an open contour. (If it does, the object with the open contour will actually be counted as two!)*

Activate the **Close Contour** command to close the object and make it one.

• The *Open Contour* Command

This command is used to open a closed contour of a selected object. It is the similar to the ***Break*** command in the ***Node Editing*** dialog.

• The *Round Corners* Command

With this command you can round off corners, both inside and outside, either for the selected nodes or the entire selected objects.
It is particularly useful for rounding lettering.

• The *Optimize Nodes* Command

With this command you can eliminate overlapping (i.e. redundant) nodes in a design. In straight lines with more than two defining nodes (the starting and end points), all extra nodes are automatically removed.

4.4 The View Menu

• The *Zoom In* Command

+ / F2

This command, used to magnify all or parts of your design, can also be activated by clicking on the ***Zoom*** icon in the tool box and then selecting the icon with the magnifying glass and the plus sign in the flyout box. Once you have activated this command, the cursor turns into the shape of a magnifying glass containing a plus sign. Using your left mouse button, you can select the area in your design you wish to magnify by dragging a box around it. Once you release the mouse button, EuroCUT zooms in on the selected area and redraws it.

Note: *The zoom-in procedure can be repeated several times for further magnification until EuroCUT issues an audible alert that indicates the maximum magnification level has been reached.*

• The *Zoom Out* Command

+ / F3

This command, used to reverse the ***Zoom In*** command, step by step, can also be activated by clicking on the ***Zoom*** icon in the tool box and then selecting the icon with the magnifying glass and the minus sign in the flyout box. Once you have activated this command, the cursor turns into the shape of a magnifying glass containing a minus sign. Using your left mouse button, you can select the area in your design you wish to magnify by dragging a box around it. Once you release the mouse button, EuroCUT zooms in on the selected area and redraws it.

Note: *The zoom-out can be repeated several times for further reduction until your design is returned to its original, premagnified state or until EuroCUT issues an audible alert that indicates the maximum reduction level has been reached.*

• The *Full Page* Command

B

This command is used to display the working area in its entirety. This command can also be accessed via the toolbox (click on the icon depicting a sheet of paper in the ***Zoom*** flyout box).

• The *Show All* Command

F4

With this command, also accessible from the tool box, i.e. the icon depicting a monitor in the ***Zoom*** flyout box, you can have EuroCUT display all objects in your working area.

This means that the objects will be enlarged or reduced just enough to display everything on your screen.

Note: *Holding the SHIFT key down while activating this command will provide a full-screen display of a previously selected object or objects.*

SHIFT+F4

• The *Show Selected Object* Command

With this command you can have EuroCUT display only ***selected objects*** in your working area. You can also activate this command by pressing SHIFT+F4.

CTRL+O

• The *To Front* Command

When you are working with several color layers, you can use this and the following commands to change their sequence.
With the ***To Front*** command the selected object/color layer is moved to the very front or top.

CTRL+U

• The *To Back* Command

With this command the selected object/color layer is moved to the very back or bottom.

PgUp

• The *Forward One* Command

With this command the selected object/color layer is moved to the next higher color layer.

PgDn

• The *Back One* Command

With this command the selected object/color layer is moved to the next lower color layer.

U

• The *Reverse Order* Command

With this command the sequence of objects/color layers is reversed. Whatever was on top is moved to the bottom, and vice versa. All objects or color layers in between are reversed as well.

CTRL+Y

• The *Always in Front* Command

With this command the EuroCUT window remains permanently in the front.

CTRL+W

• The *Refresh Screen* Command

This command tells EuroCUT to redraw all objects currently displayed in your working area. This will eliminate any debris, such as excess points or lines left over from previous editing procedures.

4.5 The *Tools Menu*

• The *Vectorizing ...* Function

V

This command give you access to EuroCUT's integrated vectorizing software, which converts scanned bitmaps into Bezier curves.

Note: *Bitmaps cannot be cut with a plotter since these images merely consist of dot patterns recognized by the scanner. Such pixel graphics must first be converted into vector graphics for output to a cutter.*

• The *Revectorizing* Option

SHIFT+V

This option considerably speeds up the vectorizing process. It is very useful for determining the best parameters for vectorizing. When repeating the vectorization, an internally created bitmap is used rather than the original bitmap in your working area.

Note: *If you have saved any changes to the original bitmap in your working area, you will have to use the* ***Vectorizing*** *rather than the* ***Revectorizing*** *command.*

• The *With Color Assignment* Command

K

This menu item can be turned on and off at will. As default it is turned off.

What is color assignment?

In the figure below you can see a picture with 16 colors/vinyls.

It is certain that nobody will to mount 156 vinyls in practice. Therefore you can combine similar color shades and thus reduce the number of colors/vinyls.

How can this be done?

There is an object in picture format (pixel graphic) on the EuroCUT working area. It is necessary to vectorize this picture before it can be cut. To do this, select the picture to be vectorized and choose ***Vectorize*** in the ***Tools*** menu.

The Color Assignment dialog box is opened.

Note: *This dialog box can only be opened when the menu item* ***With Color Assignment*** *is activated in the* ***Tools*** *menu.*

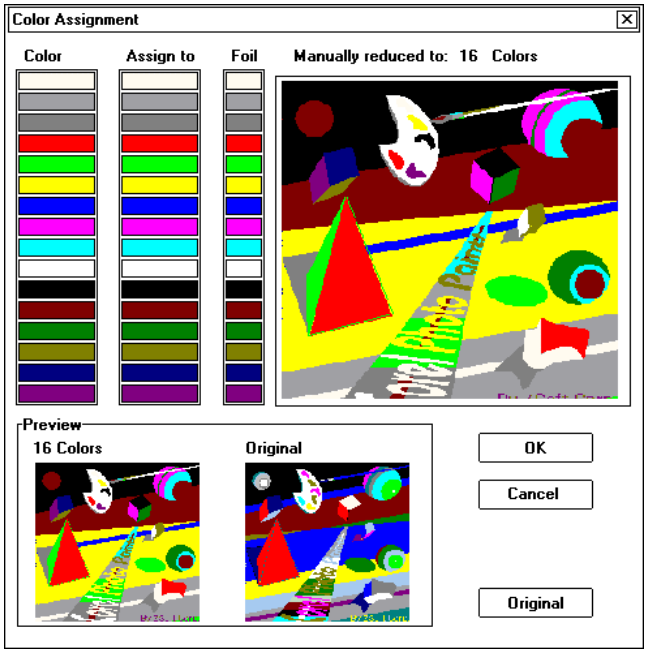
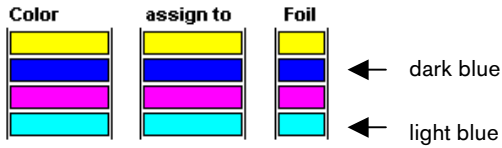


Fig. 154: The *Color Assignment* Dialog Box

The colors are combined in the columns headed ***Color*** and ***illustrate in.*** The vinyl color is indicated in the column headed ***Vinyl.***

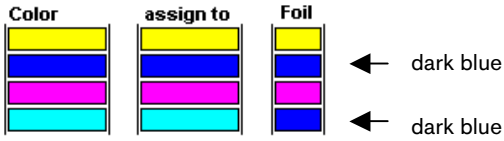
Example:



The shades of blue are to be combined in the above example.Im To do this, click with the left mouse button on the dark-blue and light-blue boxes in the column headed ***Color***.

Note: *Selected boxes are marked with a black frame.*

Now, click with the left mouse button on the blue shade of your vinyl, e.g. dark blue, in the column headed ***illustrate in***.
You will see that the light-blue bar in the column headed ***Vinyl*** has turned dark blue.



Proceed in the same way with the other shades you want to combine.

The dialog for setting the vectorizing parameters is opened. Set the desired parameters and confirm your choice by clicking on the OK button.

Note: *If the menu item* ***With Color Assignment*** *is turned off, the colors can be reduced later via the color layer box.*

• The *Contour Line ..* Function

This command provides a number of selected objects with an outline.
Unlike the ***Outline*** command, this tool can also be used to provide bitmaps with outlines. Instead of individual objects being outlined, if possible an outline is created to encompass all the selected objects. Therefore the function is particularly useful for creating cutting lines for stickers. The objects for the sticker can be put together as you wish. The outline is then created at whatever distance you wish from the objects. It can later be used for cutting out the printed sticker.

First select the objects you wish to frame. Then select ***Contour Line...*** in the ***Tools*** menu.

The following dialog box appears where you can set up the parameters:

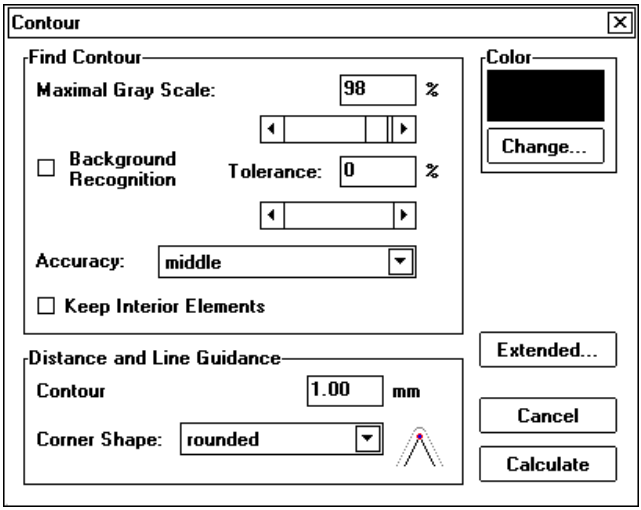


Fig. 155: The *Contour Line* Dialog Box.

The fields in the ***Create Contour*** part of the dialog box allow you to influence the calculation of the contour line. In principle, any objects which are not white are included in the contour calculation. Therefore the background of the graphic to be outlined should ideally be white. Bitmaps, in particular, often contain light-gray patches which may arise during scanning.

With the aid of the field ***Maximal Gray Value*** you can determine that gray patches above the specified intensity should not be framed. You can enter values between 50% and 99% or set them with the filter. 50% represents a relatively dark gray and 99% is almost white.

In the ***Accuracy*** field there are three options to choose from. Low accuracy works the most quickly. If you are not satisfied with the result with the low setting, choose the middle or high setting. In the latter cases it will take longer to calculate the contour line.

Note: *If you only select one bitmap, the* ***Accuracy*** *field cannot be activated.*

If you check the ***Accuracy*** box, any interior parts which may be created will not be deleted. This gives you the possibility to cut out parts of the graph by covering it with light-colored “plasters”.

This is illustrated below:

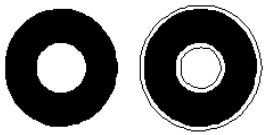


Fig. 156: Retain Interior Parts

On the left you can see the two objects in their original state. A small white circle is superimposed on the black circle. On the right the circle is displayed with the outline which has been created. As the ***Retain Interior Parts*** field was activated, the inner circle was also retained when the outline was created. If this field had not been activated, only the external outline would have been created.

Note: *As a rule the* ***Retain Interior Parts*** *command should not be activated.*

The lower part of the ***Contour Line*** dialog box, ***Offset and Line Drawing*** allows you to determine the appearance of the contour lines.

With ***Offset*** you can specify the distance of the contour line from the image. If you enter the value “0” a contour line will be created directly adjoining the edge of the selected objects. If you enter a value smaller than 0 the contour line intrudes on the objects to be outlined.

In the ***Corner Shape*** field you can determine the appearance of the corners of the contour line.

If you select the ***Normal*** option, the mathematically exact point will be calculated on the contour. This means that the contour line can be considerably lengthened at pointed corners, which often leads to unsightly results.

In such cases you can achieve more satisfactory results by choosing the ***Cut Off*** and ***Round*** options.

The ***Cut Off*** option shortens the contour by the specified amount and cuts off the corner with a straight line.

The ***Round*** option changes the corner into a rounded curve. On the right side of the dialog window you will see a color selection box which can be used to assign colors to contours.

Example: Roland RC-60 (Print & Cut)

There are several bitmaps on the EuroCUT working area. Some of the bitmaps are to be cut out and the rest printed. The bitmaps which are to be printed are outlined in blue and the bitmaps which are to be cut are outlined in red. When the data are transmitted to the output device, you can specify in the PC-60 driver dialog box which color is to be cut (Cut by Color). The red outline has been selected in our example.

By clicking on the ***Enhanced...*** button you can call up an additional dialog box where you can make more precise settings for calculating the outline.
***Note**: The default settings in the **Enhanced Settings** dialog should only be altered in exceptional cases!*

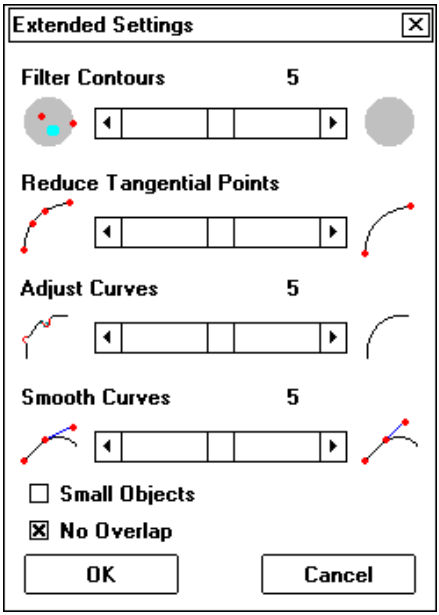


Fig. 157: Enhanced Settings

To optimize the contours, four different types of filters are available:

Filter 1:
Filter Contours reduces major noise (garbage) by ignoring contours consisting of less than five pixels.

Filter 2:
Reduce Tangential Points reduces the number of points or nodes on a curve. The higher the degree of reduction, i.e. the fewer the nodes that are retained, the further the scanned curves will deviate from the original.

Filter 3:
Adjust Curves considers the overall direction of straight lines and curves and eliminates stray horizontal and vertical lines that appear to have no effect on them.

Filter 4:
Smooth Curves aligns the tangents of curve points. The higher the degree of adjustment, the more the curves are smoothed. Smooth curves with perfectly aligned tangents have the advantage of producing very clean cuts.

However, excessive smoothing can once again cause too much deviation from the original. Therefore, a moderate value is preferable.

If the ***Include Small Objects*** option is activated, closed objects will also be created from small objects. The first filter cannot be used when this option is activated.

N

The ***Without Intersection*** option allows you to eliminate automatically any intersections which may appear within the outlined objects..

Once you have made the desired settings in the ***Enhanced Settings*** dialog box, confirm by clicking on *OK* to return to the main dialog box.

To create the contour line, select ***Calculate***. Depending on the complexity and number of the objects selected, it may take several minutes for the outlines to appear.

• The *Scanning* Command

This is the command you use to activate your scanner via the TWAIN Interface program. Provided your scanner comes equipped with this type of interface, you can address your scanner and control the scanning functions directly through this command. Please check with the scanner manufacturer to find out whether such an interface is available for your particular mode. If it is not available, you can insert a command for your particular scanner software in the menu structure via the ***Tools*** menu command ***Insert Program.***

• The *Scanner Setup...* Command

This command allows you to select and set up your scanner.

• The *New Clipart* Command

This command offers you an easy way of storing groups of logos, symbols, text strings, or other objects frequently used in your designs.
These objects can be organized in groups for categories. The ***New Clipart*** command is used to manage new and existing categories of clipart.

Once you have activated the command, a dialog box titled ***Symbol Manager*** appears. The ***Symbol Categories*** window lists ***all*** available categories. If you need to create a new clipart group, enter an appropriate name in the ***New Name*** entry field.

Note*: The length of the name must not exceed eight characters.*

The ***Create Category*** button establishes a new group under the name you have chosen. You can save EuroCUT jobs as symbol files by adding them to this group with the ***Add*** button in the ***Symbols*** dialog box (see ***Clipart*** command below). The ***Install Clipart*** icon is used to import clipart from an outside source such a floppy disk or CD. The extension of these files is *.cla. The remaining two buttons are used to delete or rename categories.

Click the ***Back*** button to quit the clipart manager.

• The *Clipart*...Command

This command launches the clipart manager. Use your left mouse button to click on the ***Group*** field or on the button at the end of the text field to activate the list of all available categories. Select one of them. If you wish to add one or several objects to this group, select them in your working area, then click on the ***Add*** icon. Repeat this procedure until you have filled the category with all the desired symbols..

Note: *If you click on a piece of clipart with the right mouse button, a dialog box will be opened in which you can enter clipart signatures. The maximum text length is 20 characters.*

There are two possibilities for importing clipart into your working area:

1. Position your cursor on the piece of clipart you wish to import. A black frame is drawn around a piece of clipart which has been selected. If you double-click with the left mouse button, the piece of clipart art will be imported to EuroCUT and positioned so that the lower left corner of the job is located on the point of origin (0/0) in your working area.

2. ***Drag & drop***: Position your cursor on the piece of clipart you wish to import. A black frame is drawn around a piece of clipart which has been selected. Press the left mouse button and keep it held down so that you can drag the selected piece of clipart directly to EuroCUT.

You can delete clipart which you no longer require from the clipart manager by clicking the ***Delete*** button.

Use the ***Clipart Manager*** button to open the clipart manager.

• The *Insert Program ...*Command

With this command you can insert a different program (unrelated to EuroCUT) into the EuroCUT menu structure. This keeps the user from having to exit EuroCUT to launch other programs and also from going through the Windows program manager to do so.

• The *Edit Program List*...Command

With this command you can edit insertions you have made in the EuroCUT menu structure.

M

Note: *This command only applies to menu items related to other programs added in by the user (See* ***Insert Program*** *... command above.)*

• The *Measure* Command

This command is used to measure (as well as scale or rotate) the distance between any two points in your design. You may also access this command by clicking on the measuring tool in your tool box. Once you have selected the command, the cursor changes into a bull's eye. Move the center of the bull's-eye to the first point. While holding down the left mouse button, drag it to the second point. Now release the mouse button and the results are displayed in a dialog box and can be modified if necessary. If you press the SHIFT key while measuring, EuroCUT will only measure the exact vertical or horizontal distance between the two points, depending on the direction in which you move from one to the other.

O

Note: *Changes in size will be applied proportionally to* ***all*** *objects. When rotating bitmaps, the bitmap itself will be enlarged, which is not the case for any objects it may contain.*

• The *Outline* Function

V

This command is used to create an outline (or inline) around a selected text or object with an offset than can be specified by the user. A number of options are available with this command. It can also be activated via the ***Outline*** icon in the tool box.

• The *Welding* Command

This command is used to eliminate overlaps of objects which would otherwise result in unnecessary cuts and, consequently, poor output quality. A number of different options are available with this command: ***Manual, Automatic, By Color*** or ***Full Surface.*** The most common application for this feature is welding of serifs in script fonts. The ***Welding*** command can also be accessed via the tool box.

F

• The *Engrave* Command

This command is used to launch EuroENGRAVE. Please see the EuroENGRAVE manual for further information.

Note: *The engraving program is an optional add-on to EuroCUT and must be purchased separately.*

• The *Use of Material* Function

This command ensures that all objects are arranged in such a way that they take up as little space as possible on the material.

• The *Text Editor*

When you select this menu item, which can also be accessed via the *T* icon in your tool box, the cursor immediately takes on the shape of an arrow with a . Use the tip of the arrow to click on the exact point at which you would like to insert text. This will activate the ***Text Editor*** dialog box, in which you can select a number of text attributes.

Note*: Please see Section 2.2.5 for a detailed description of this function.*

4.6 The *Image* Menu

The ***Image*** menu contains a number of functions used for editing images and photographs.

• The *Reduce Colors* ...Command

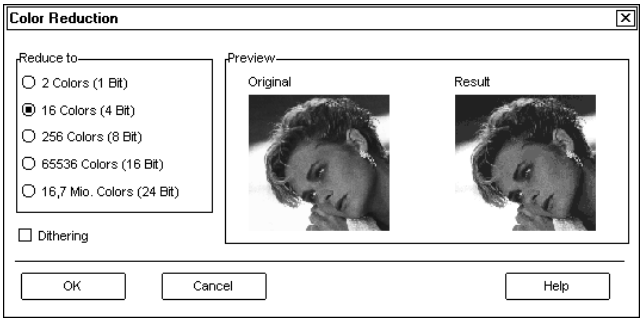


Fig. 158: Dialog Box for Color Reduction Settings

This option is used to reduce the number of colors in a scanned image which may contain thousands or even millions of colors. The number of colors can be set from 1 bit (2 colors) up to 24 bits (16.7 million colors [Targa-Format]). The amount of data associated with such great color depth is considerable and requires a powerful computer system for processing. In most cases, we therefore recommend reducing the number of colors for a more efficient use of your computer. In addition, if you intend to cut the image from vinyl, only a relatively limited number of colors is even feasible.
The color reduction can be done incrementally down to one bit per pixel (for black and white). Dithering is optional.
Dithering refers to a process in which adjoining pixels of different colors are colored slightly differently to simulate a third color. With dithering, a color monitor can produce the effect of more than 256 colors.

Note: *If you intend to vectorize the image later on, do not select the dithering option since this will negatively affect the quality of vectorization.*

• The *Posterize...* Command

With this command you can reduce the number of colors per color layer. The number of permissible colors per layer is 2 to 62.

• The *Grayscale*... Command

Select this command to convert a color image to grayscale with a maximum of 256 levels.

• The *Invert...* Command

With this command you can convert a positive scanned image to a negative and vice versa. The color value for each pixel is replaced by its opposite value in a color scale, e.g. 0 becomes 255, 50 becomes 205.

• The *Contrast*...Command

This command is used to adjust the contrast in the scanned image. The contrast between the lighter, darker or intermediate areas can be made more pronounced or softened.

• The *Brightness...* Command

This command governs the brightness of the entire scanned image. Brightness consists of the intensity of light which is reflected or absorbed by the image.

• The *Saturation*... Command

With this command you can adjust the intensity of your colors or hues.

• The *Sharpness*... Command

This function enhances the sharpness of pixels in bitmaps by first localizing the edges of pixels and then setting the degree of tolerance for the background pixels via the filters (values between -100 % and +100 % are possible).

• The *Gamma Correction...* Command

Gamma correction is a method of adjusting color gradation, taking account of how the eye perceives a color when the adjoining area is of a different color.
Gamma correction primarily affects color hues in the center of the spectrum.
Gamma values between 0.01 and 4.99 can be set using a filter.

Result: *By adjusting the gamma value, you can achieve a greater contrast between details in drawings.*

• The *Relief...*Command

With this filter, you can create a relief or three-dimensional effect in your image. This means that certain areas will appear raised while others are lowered. This effect can be altered by selecting different origins.

• EuroPhotoCUT

This module creates vectors from bitmaps.

Mode of functioning:
EuroPhotoCUT creates line patterns from Windows bitmap files (**.BMP, *.PCX, & *.TIF).* These patterns can be cut on a cutting plotter or similar device.

The image is divided into logical pixels and the average grayscale is worked out for each of these logical pixels. Thus, an image is created having fewer pixels than the original. This image is then used to create horizontal or vertical lines, circles, squares, etc, whose width is proportional to the grayscale in the corresponding place.

The *EuroPhotoCUT* Dialog Box

Open the ***EuroPhotoCut*** dialog box by clicking on the menu item with the same name.

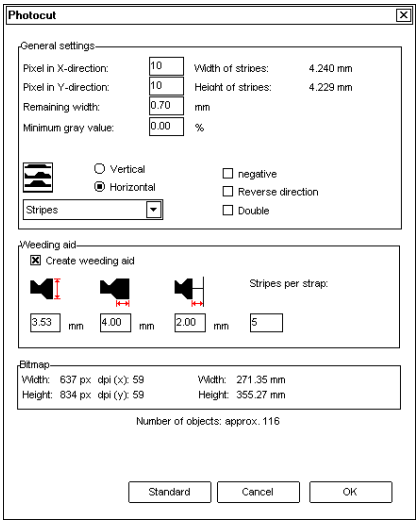


Fig. 159: The *EuroPhotoCut* Dialog Box

The various elements of the ***EuroPhotoCut*** dialog box are described in detail on the following pages.

General Settings

Pixels in X Direction

In this box enter the number of pixels which are to be combined in X direction into a logical pixel.

Nots: *The smaller the value entered in this box, the better the output quality of the "bitmap" will be.*

Pixels in Y Direction

In this box enter the number of pixels which are to be combined in Y direction into a logical pixel.

Note: *The smaller the value entered in this box, the better the output quality of the "bitmap" will be.*

Remaining Width

The remaining width of a line (only for lines) in mm of the line/column size.
The remaining width is also as least as wide as the total amount of vinyl stripes and weed garbage.
As the stripe width depends on the number of pixels (per stripe) and determines the possible remaining remaining width, the original bitmap must be available in a "cuttable" size.

Example: *If the bitmap is so small that 10 pixels only give 1mm, the remaining width cannot be 1 mm!*

Note: *If the user enters a too large value for the Remaining Width, the old value is taken and a message appears.*

Minimal Grayscale

The minimal grayscale is a limit for the grayscale. Thus, a background which has the same grayscale as a bitmap can be removed.

Note: *This value only needs to be considered when an image is darker than its background.*

The following image will serve as a model for all the examples:

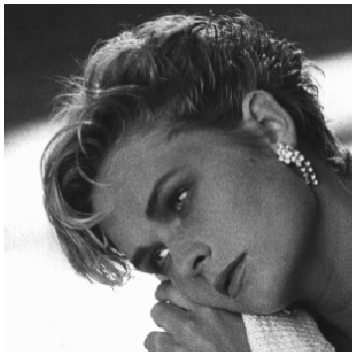


Fig. 160: Model for Examples (photo.bmp)

Negative

This command reverses the values of the gray tones, i.e. 100% black, for example, becomes 0% white and vice versa.

positive negative

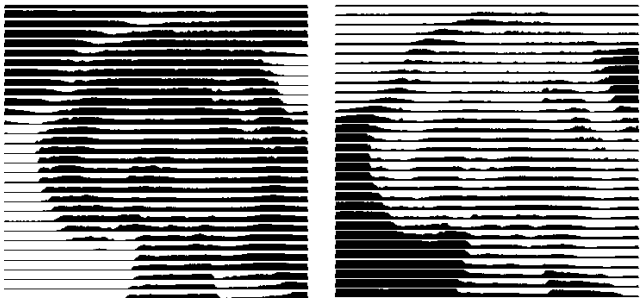


Fig. 161: Example of Reversing the Grayscale Values

Reverse Direction (only for lines)

If this command is activated, the width of the lines will be directed downwards.

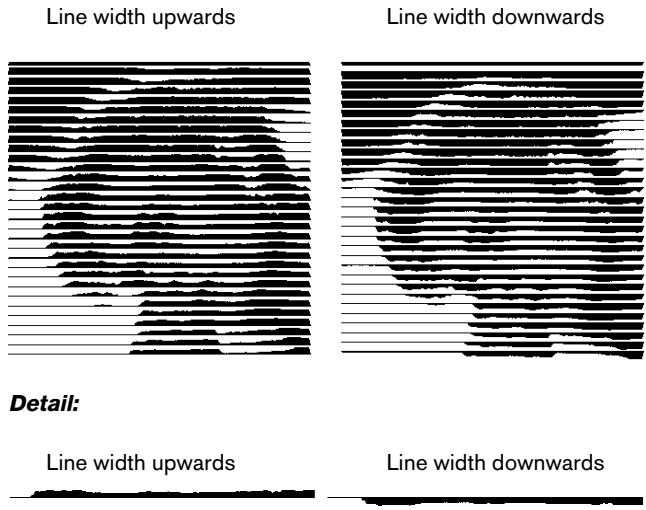


Fig. 162: Example of Reversing the Line Width

Double (only for lines)

This command creates a line of double width, i.e. upwards and downwards.

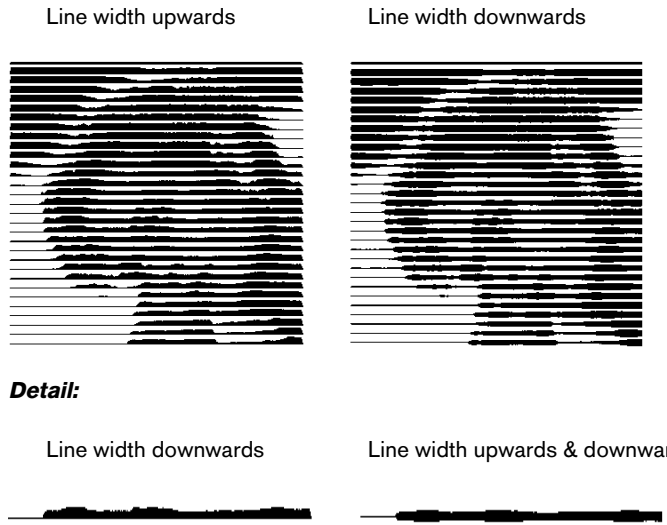


Fig. 163: Example of Line Width Enlarged Upwards and Downwards

Horizontal or Vertical

Use these buttons to specify the running direction of the lines.

Bitmap

The data of the original image are shown in the field titled ***Bitmap***. The ***Width*** and the ***Height*** of the image in pixels and the resolution in dpi are shown in the upper part and the ***Width*** and ***Height*** of the image appear below in millimeters.

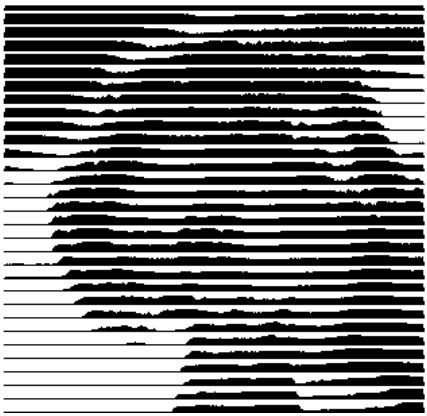
Relations between the entries in the ***General Settings*** field:

Example 1:

The following entries have been made:

Pixels in X direction	= 1
Pixels in Y direction	= 10
Remaining width	= 2
Minimal gray scale	= 0
Direction	= horizontal
negative	= not active
Reverse direction	= not active
Double	= not active

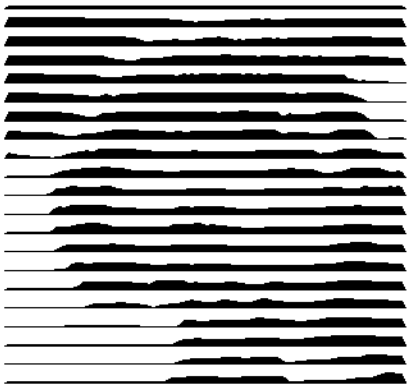
Result:



Example 2:

Pixels in X direction	= 3
Pixels in Y direction	= 15
Remaining width	= 5
Minimal gray scale	= 0
Direction	= horizontal
negative	= not active
Reverse direction	= not active
Double	= not active

Result:



In the illustration above you can see that even small modifications of the values produce very different results.

Weed Aid

Create Weed Aid

The lines are thickened at the ends so that the image can be weeded more quickly.

Strap Width

You can specify the width of a strap in this box.

Strap Thickness

You can specify the thickness of a strap in this box.

Strap Offset to Weed Border

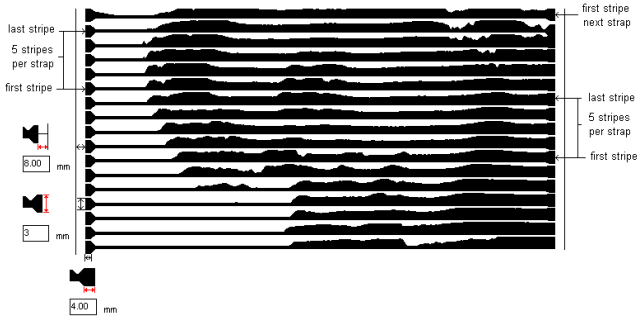
You can enter the offset to the weed border in this box.

Stripes per Strap

In this box you can enter the number of stripes that each strap should contain.

The bitmap dimensions in pixels and mm and the probable ***Number of Objects*** are displayed beneath these fields.

Example of ***Stripes per Strap, Strap Width, Strap Thickness*** and ***Stripes***



Modes:

In the EuroPhotoCut dialog box you can choose between the following modes:

Lines, Rhombuses, Circles, Squares, Single Rhombuses, Single Rectangles and Spirals.

Which mode will obtain the best result depends on the bitmap used and the parameters set.

Note: *It is not often possible to judge the quality of the result from the screen display. You should print out the result so that you can assess it accurately and don't run the risk of wasting expensive vinyl*

• The *Convert to Bitmap* Command

With this command you can convert all selected objects to a bitmap with user-definable resolution and color depth.

• The *Attributes*... Command

With this command you can increase the number of pixels in an image.
The size of the image is then enlarged in proportion to the increase in the number of pixels.
The resolution is indicated in dpi (dots per inch).
This menu item also provides additional information about the bitmap and shows the ***Storage Space*** required and the ***Color Depth.***

• Transparent Display of Images in Wireframe Mode

In the *Wireframe Mode* you have two options for displaying your images: transparent or full surface. Select *Attributes* in the *Image* menu.

The following dialog box is opened:

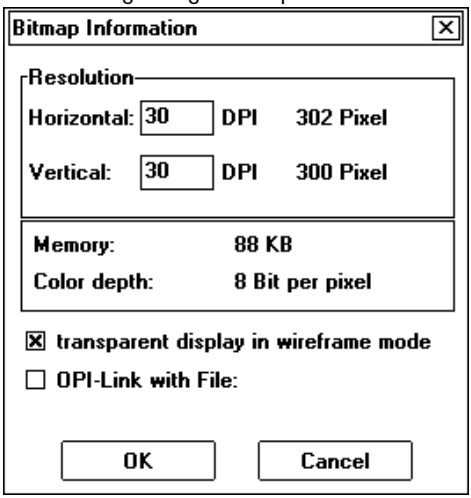


Fig. 164: Dialog Box for Setting Bitmap Attributes

You will see the option ***Transparent Display in Wireframe Mode*** in the lower part of the dialog box. This is the default option which is normally turned on.

Advantage: Bitmaps can be positioned exactly in the wireframe mode (see example below).

Wireframe mode
transparent display
not active

Wireframe mode
transparent display
active

Fig. 165: Example of Transparent Display

You can see on the left side of the example in the above illustration that the images lying beneath the bitmap cannot be seen or can only partly be seen.

On the other hand, all the objects on the left side can be seen and can therefore be positioned well.

4.7 The *Settings* Menu

The ***Settings*** menu is used to select basic setups for default values for working with EuroCUT. There is a dialog box available to the user for each basic setting, such as job info, etc.

Standard Settings

Misscellaneous

CTRL+J

- ***EuroCUT Setup***

The following basic setups can be selected by the user:

- ***Duplicate/Offset in X Direction***

With this entry you can determine the amount of offset in X direction between the original object and its duplicate. If you enter a positive number, the duplicate is positioned to the right of the original object.

- ***Duplicate /Offset in Y Direction***

With this entry you can determine the amount of offset in Y direction between the original object and its duplicate. If you enter a positive number, the duplicate is positioned above the original object.

- ***Move Objects in X Direction***

With this entry you can determine the incremental distance a selected object moves horizontally when you press the arrow keys on your keyboard.

- ***Move Objects in Y Direction***

With this entry you can determine the incremental distance a selected object moves vertically when you press the arrow keys on your keyboard.

Note: *If you later decide that you want to move objects in smaller increments than you have indicated here, you may do so by pressing the SHIFT key while using the arrow keys. This reduces the increments to one tenth of the original value. By pressing both the SHIFT key and the CTRL key while using the arrow keys, the increments are reduced to one hundredth of the original value.*

- **Autosave**

Under ***Autosave Interval*** you can specify how frequently (in minutes) you want EuroCUT to automatically save the job or file you are working on. The default value is set for saving every 10 minutes.
The ***Save*** file (***Autosave.job***) is always located in the main directory of EuroCUT.

- ***Number of Reversible Steps***

This entry concerns the ***Undo*** command discussed earlier in Section 4.2, The ***Edit*** Menu.

- ***No Undo/Redo for Bitmaps Exceeding ...***

For bitmaps exceeding the value entered in this field the ***Undo/Redo*** functions are automatically turned off, i.e. any changes made to these bitmaps using the Image menu cannot be reversed.

The reason for this is that the time required for bitmaps above a certain size is too long, as a copy of the original has to be made for every undo or redo step.
The value entered in this field should be between 5% and 10% of the RAM capacity.
The advantage of this function is that you save time.

The ***Delete Undos Before Printing*** command deletes all undos made to date.

- ***Export via Clipboard***

When exporting via the clipboard, you can automatically specify if objects exceeding 600 * 600mm (about 24 x 24 ins) are to be scaled.

- **Job Info**

In addition to the fields available in ***Job Info***, this dialog box allows you to generate other user-defined fields, which will be displayed in the loading and deleting dialog boxes when they contain information.

If you click the ***Automatic Job Info Enquiry*** button, you will be automatically asked if you wish to enter job information when saving a new job.

- **Mouse**

This is where you can assign a specific command to your right mouse button, which will then be activated with a single click. Display the list of available functions by clicking on the arrow next to the list box. Double-click on the command you wish to assign.

Node Selection Delay:
With entries for X and Y, you can specify the number of increments an object will move when you drag it with your mouse. The default value is 100 and the given unit of measurement is one thousandth.
The smaller the entered value is, the more precisely you will be able to move your objects. On the other hand, if you are not used to working with a mouse, it may be better to select a high value since this will delay the rate at which the object follows the mouse.

- ***Plotter***

In this setup category you can select a number of important parameters for outputting to your plotter/cutter.

You can activate or deactivate this option via the ***Cutting Preview*** window.
In the EuroCUT dialog box the preview window can only be activated and deactivated if it has previously been activated in the plotter setup. The background of the window appears in gray if it is not activated.
If you activate the ***Register Marks Without Cross*** option the register marks will be cut without crosses.

Wait after Segment: Choose this option if you want the plotter to wait after cutting each segment. A segment refers to the partial output of a sign which, in terms of size, exceeds the cutting area of the plotter and therefore has to be cut in sections. This option is commonly used with flatbed plotters that are not equipped with an automatic roll-feed device, in which case the size of the segment is equal to the maximum cutting area of the plotter.

Once the segment has been cut, the cut material must be removed and new material loaded and repositioned manually.

Sort: This option refers to the sequence in which objects in your design are cut. If you choose to sort prior to cutting, all inner sections of your design or objects will be cut before the outer sections, and all objects will be cut in order of position on the X axis. With roll or drum plotters, this keeps back-and-forth movement of the material to a minimum and thus maximizes output quality, particularly with friction-fed plotters. This option is also important for routing.

Note: *Selecting this option slightly reduces output speed.*

Weed Border: This option is used to cut a border or frame around your design to facilitate weeding. You can specify the distance between the weed border and the outermost points of your design.

Overlap: When cutting a sign in sections, you can choose an overlap for each segment to compensate for possible material shrinkage. Cutting signs in sections becomes necessary when the size of the design exceeds the capabilities of the plotter, i.e. the maximum cutting area.

Segment Offset: This option lets you define the distance between the segments, i.e. the distance between the end of one segment and the beginning of the next.

Copy Offset: This option lets you define the distance between multiple copies of your design, i.e. the distance between the end of one copy and the beginning of the next.

- **Import**

In this dialog box, you can define import paths, as well as enter file names for automatic file import. This is how automatic file import works:

Provided EuroCUT is loaded on your computer, an eps file can be imported and stored under the specified import file name, e.g. EuroCUT. This will automatically launch EuroCUT and load the file into your working area.

Note: *For importing files from CorelDRAW 3, 4 or 5, exported files are automatically assigned the name CoRUN. If EuroCUT is installed after CorelDRAW, this export procedure is taken into*

account, and on the right side of the CorelDRAW menu bar a EuroCUT symbol is inserted for your convenience.
A simple click on this symbol will automatically export the file from CorelDRAW into EuroCUT. In the case of Corel DRAW6 you can find an installation sheet at the beginning of this manual.

Choice of Filter

You can choose between the following filters:

*.EPS AI Illustrator, EPS incl. *.EPS
*.AI AI Illustrator, EPS, AI Postscript
*.BMP EuroPhotoCUT, Windows Bitmap
*.PCX EuroPhotoCUT, Paintbrush Bitmap

Note: *The fields under* ***Preferred Import Filter*** *have to be set up before files can be imported to EuroCUT Professional with drag & drop.*

Deactivate Preview for ...

Here you can make settings for the preview windows of bitmap or EPS files in the ***Import*** dialog box.

If, for example, you enter a value of 2MB in the field ***Bitmaps exceeding***..., the preview window for bitmaps exceeding 2 MB will be automatically deactivated.

If you wish the preview window of the file to be imported to be displayed, the ***Preview*** field below the preview window has to be activated.

The default setting for this option is 1MB.

In the field ***EPS files exceeding ...***, you can enter values for the preview of EPS files in the *Import* dialog box. Here the default setting is 0.1MB.

• The *Color Palette* Command

This command allows you to create, load or save new color palettes.

- **New**

This command deletes all color layers with a layer number higher than 6.
You should use this command when you want to create a new color palette.
You can select the layer color by simply clicking on the desired color with the left mouse button and then clicking the ***OK*** button.

- **Load...**

This command is used to load previously created palettes.

- **Save**

Use this command to save a newly created or modified default palette on your hard drive.

If the new or modified palette is saved as the default palette, it will be used whenever EuroCUT is restarted.

- **Save as...**

Use this command to enter the name of a new palette.

- **Default**

This command loads the color palette which comes with EuroCUT as the default palette. It is made up of Mactac vinyl colors which have been specified as the default palette with the aid of the color fan.

- ***Palette History***

This function facilitates the loading of the last four color palettes without having to go indirectly through the list of directories.
The names of the color palettes most recently worked with appear at the end of the list in the ***Color Palette*** menu. Click with the mouse on the name of the palette you wish to open the palette.

• The *System Control* Command

This command activates the ***Control Panel*** option box of your ***main*** Windows group, located in the ***Windows program manager***. You need this command to modify the system parameters of Windows, which is usually necessary for configuring the serial interface when installing a printer or plotter.

• *Working Area*

CTRL+R

This is where you can redefine the size of your working area. Besides various standard settings, you can specify up to 10 user-defined sizes.
This is a useful function for users of routing and engraving machines, as they no longer need to redefine the working area each time.
The color of the working area can be defined by the user, thus guaranteeing better layout control on the screen.

Note: *Double-clicking on the shading of the working area (to the right or along the bottom) also activates this dialog box.*

• The *Rulers...* Function

In this dialog box you can define the location of the rulers. If you find you are running out of space in your working area, you may choose not to have the rulers displayed at all.

• The *Measurement Unit* Function

This command is used to change the unit of measurement. This can also be done by clicking the button located at the point where the horizontal and vertical scroll bars meet.

• The *Grid* Function

In the ***Grid Settings*** dialog box you can choose between grid lines or grid points. This function can be very useful for positioning objects in the working area.

^

Both the grid spacing and the offset in X/Y direction can be defined by the user. The default reference point is 0/0 in the lower left corner of the working area. For additional help when positioning objects, select the ***Snap to Grid*** function.

F9

• Screen Colors

SHIFT+I

This menu item refers to the display of colors on your monitor, which depends on the graphics card in your computer and the resolution selected in the monitor driver.

Note: *These selections in no way affect output quality.*

- **Spot Colors**

If your hardware has this capability, *256 spot colors* (rather than process colors) are used for the color display.

- **256 Color Dithering**

With this type of display, *256 process colors* are used.

- **Windows Dithering**

F8

If you do not have a VGA monitor with 256-color display, only this option may be selected. The color display will then consist of *16 process colors.*

Redrawing graphics in your working area (i.e. ***Refresh Screen***) takes up the least amount of time in this mode.

F7

• The *Edit Wireframe* Mode

In this mode, only the contours or outlines of the objects in your design are displayed. The outline takes on whatever layer color you have chosen for that object. If the layer color is white, the outlines are displayed as dotted gray lines. This mode speeds up the ***Redraw*** function (and with it, the editing process), which is particularly useful when you are working with full-color designs.

• The *Draft* Mode

SHIFT+F7

Similarly, this option helps speed up editing when you are working with a lot of text strings. All text objects are displayed as crossed rectangles, which again makes the ***Redraw*** function much more efficient.

• The *Interrupt Display* Command

This option, which is particularly helpful when you are working with complex designs, allows you to interrupt the redrawing of the screen at any point in order to select another menu item or tool. It is not necessary to wait until the screen has been redesigned.
It is important to note that text blocks may appear in simplified form as crossed rectangles. This operation is extremely rapid. Otherwise the blocks behave in the same way as text blocks.

• The *Undo/Redo* command

CTRL+F

This command activates and deactivates the ***Undo/Redo*** command.
One advantage of deactivating this command is that node editing is faster in the case of large or numerous objects.
When there are several editing steps, the trial phase (original state → editing → temporary final state) can be reversed as follows:

1. Activate Undo/Redo
2. Edit objects

3. Deactivate Undo/Redo
You can restore the state prior to step 1 by clicking the ***Undo*** command in the ***Editing*** menu.

P

• The Cross-Hair

When you have activated this option, the cursor becomes a cross-hair (an intersecting vertical and horizontal line) that covers your entire working area. As soon as you go beyond the working area, e.g. to select a tool, the cursor reverts back to the arrow shape.

H

• The *Snap to Guideline* Command

This option is designed to help you precisely position objects on any guidelines you may have placed in your design. In this mode, objects will gravitate towards the nearest guideline.

• The *Guidelines Setup* Command

This command is used to place dotted blue guidelines anywhere in your design to facilitate the design, positioning, and alignment of objects. These lines are design aids only and will not show up anywhere in your output.

CTRL+H

Note: *Activating the* ***Snap To Guideline*** *command (see above) will cause the guidelines to* ***attract*** *objects placed near them, which makes it even easier to precisely position objects in your design.*

SHIFT+H

• The *Lock* Command

With this command you can lock your guidelines so that they can no longer be selected, moved, or deleted.
To unlock them, you must first click on this command again.

CTRL+1

CTRL+2

• The *Show Guidelines* Command

With this command you can make the guidelines invisible. To make them visible, click on this command again.

• The *Show Tool Box* Command

With this command you can have the toolbox displayed in, or removed from, your desktop.

• The *Show Layer Box* Command

With this command you can have the layer box displayed in, or removed from, your desktop.

4.8 The Help Menu

• About EuroCUT©...

Clicking on ***About...*** will activate an information panel containing pertinent information on EuroCUT, such as the serial number, version number, free disk space, the processor and coprocessor.

In the lower right part of the dialog box there is a scroll window listing all program files in the version you are using, i.e. EuroCUT, Basic or Professional. You can print this list by pressing the ***Print*** button.

Note: *It will help our support staff to rapidly eliminate any problems you may encounter with your EuroCUT version if you give them this list.*

• *Help...*

This menu item launches EuroCUT online help.

• *Info...*

This window contains information on the objects in your working area, such as total number of objects, number of objects selected, text blocks, data blocks, bitmaps, envelopes, groups, and combinations.

• *Online Support*

You can get into direct contact with the support service of RCS Systemsteuerungen GmbH by clicking this option. If you have not installed a browser, you will be shown a text file informing you what to do if you wish to take advantage of the RCS-ONLINE service.
In RCS-ONLINE you will find useful tips and tricks about EUROSYSTEMS products and also questions frequently asked about software and various cutting plotters. To enable us to eliminate problems as rapidly and efficiently as possible, we would ask you to immediately fill out the fields in the form under ***Software Registration*** if you are not registered with us.

4.9 The Functions of the Right Mouse Button

The functions of the right mouse button make working with EuroCUT much easier and faster.
The following basic menu items are available to you:

Fig. 166: Basic Setup of the Right Mouse Button

Depending on which mode is activated, e.g. ***node editing*** or how the objects are positioned on the screen, e.g. ***combined*** or ***grouped***, the following additional menu items may be displayed:

In the node-editing mode:
Add, Break, Join, Straight Line, Curve

If there are objects:
Export

If objects are selected:
Group, Combine

If there is a group or combination:
Ungroup, Break Apart

If there is a text block selected:
Edit Text, Text to Curves, Text to Lines

If a bitmap is selected:
Attributes, Reduce Colors, Posterize, Vectorize, Contour

If bitmap has been vectorized:
Revectorize

If an object (not a group) is selected:
Popup Fill with:
***None, Gradient Fill, Bitmap, Layer Color* and**

Popup Outline with:
Without, Hairline, Attributes

If at least one object is selected:
Popup Design with:
Size..., Position..., Rotate/Skew, Duplicate...

Note: *Please see the* ***Reference Section*** *of this manual for detailed information about the above-mentioned menu items.*

5. Windows Overview

Win 3.11, 95, NT4.0

In this overview of Windows, we will only cover elements that are relevant to operating a plotter/cutter. This chapter is in no way intended to be a substitute for an in-depth course on the workings of Windows.

With this brief description, our goal is merely to familiarize the EuroCUT user with the terminology of Windows and to point out items that are of particular interest when outputting to a plotter. If you require additional information on Windows, please consult your Windows manual.

5.1 Control Panel

Most important setup preferences regarding your interfaces, system parameters, and desktop can be found in Windows 3.11 under ***Control Panel*** which is accessible from the ***Main Group*** window of the ***Program Manager*** and in Windows95/NT under ***Start/Settings/Control Panel.***

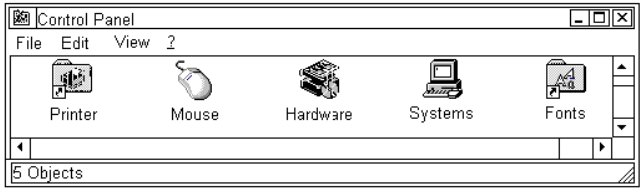


Fig. 167: Windows Control Panel

The two items relevant for EuroCUT are: ***386 Enhanced*** and ***Ports***.

5.1.1 386 Enhanced

This dialog box allows you to install virtual memory on your hard drive.
Virtual memory is space on your hard disk that Windows running in 386 enhanced mode uses as if it were memory.
This happens whenever the RAM on your computer is insufficient to handle the amount of data being processed.

The default setting for the type of virtual memory is ***temporary.*** This means that Windows searches for free memory on the hard drive whenever you run out of RAM.

The disadvantage of this setting is that there is usually no continuous space available to store the data on your hard disk which means that it will be stored in fragments. When the computer retrieves this data later on, you will notice a marked decrease in your system's performance. We therefore recommend that you change the virtual memory type to ***permanent.*** This will set aside a certain amount of space on your hard drive to be used exclusively for Windows. An allotment of no more than 15,000 Kb is sufficient. This change in settings will considerable decrease the time it takes to retrieve the data. Your plotter should be hooked up to your computer via the serial rather than the parallel (printer) port. The serial RS 232 port provides the data link between the cutter and the host computer. The host computer calculates the data to be sent to the cutter. Then, by way of a hardware handshake, two-way data exchange occurs between the cutter and the computer. A section of the data cable provided by the plotter manufacturer is allocated specifically for this handshake.

5.1.2 Ports

Your cutting plotter should be operated over your computer's serial drive and not over the parallel (printer) port.
The serial RS 232 port is the link for data exchange between the cutting plotter and the so-called host computer.
The host computer calculates the necessary plotting data decentrally.
Two-way or ***bidirectional communication*** takes place between the host computer and the cutting plotter via a hardware handshake. There is a separate data lead for this handshake in the original cable supplied by the plotter manufacturer.
The centronics port, i.e. the parallel (printer) port, only permits one-way or unidirectional communication between the host computer and plotter.
The cutting plotter can receive, but not cut, data using this port. Thus, when using this port, it not possible to specify the vinyl width, vary the stabbing pressure or reduce the cutting speed. Only one port at a time can be active, in this case the plotter, as it receives the data first.

Besides this purely technical difference, there is another important reason, which is the different distribution of resources with computers using MS Windows 3.1x.
Whereas serial drive lets you go on working during plotting, the computer is blocked all the time during plotting, when parallel drive is used.

In this case serial drive means higher productivity.
If for any reason, your plotter did not come with a serial data cable, please see Appendix B for detailed information on cable configurations applicable for various plotters.

Note: *We strongly suggest using the original cable supplied by the plotter manufacturer. We expressly deny any responsibility for damage that may result from having your own cable manufactured based on the information contained in* ***Appendix B****.*

Please see Chapter 1, Step 7, for information on configuring the serial port and entering standard parameters. Only if the parameters entered in the computer are identical to those of the plotter, can errorless communication occur between the two.

6. Kerning Editor

What is Kerning?

When individual characters are placed next to each other to form a text string, it is not unusual to find major discrepancies in the spacing between them. Take, for instance, the word "Text". You can easily detect a wider gap between the "T" and the "e" than between the remaining letters. This is due to the fact that the horizontal line on the "T" projects beyond the letter's side bearings (which is the definition of a ***kern***). This ***protrusion*** serves as reference point for the spacing to the next character, "e", thus creating a wider gap than the remaining part of the letter would warrant.

Compare that to the word "letter". Here the spacing between all letters is equal, which makes the appearance of the entire word much more aesthetic.
To avoid this spacing problem, many character combinations have to be modified, i.e. the spacing between them customized. This correction, which is generally performed during the design and development of new fonts, is commonly referred to as ***kerning.***

What Determines Kerning?

During the development of new fonts, kerning is defined according to the type of font. Typewriter fonts, for instance, are given a uniform character width and therefore require no kerning at all. This is not the case with proportional fonts, which, without kerning, are often difficult to read. For these types of fonts, the original developer defines kerning factors that will produce the best results. These factors are listed in a table referred to as the "PFM (**P**rinter **F**ont **M**etrics) files**"** in the Adobe Type Manager and are implemented whenever such a font is used.

How are Kerning Factors Defined?

The text metrics of Postscript Fonts are defined in 1/1000 parts of the font size, e.g. a character width of 500 refers to one half of the character height (including upper and lower extensions). It seems, therefore, quite logical to define the kerning values in 1/1000 parts as well.

Why Use a Kerning Editor?

Since fonts are generally designed for printing purposes, it is possible that for many sign applications, where large character sizes, all caps, and short text strings are common, the kerning may be unsightly. With a kerning editor, all these spacing problems can easily be fixed.

What are the Capabilities of Kerning Editor V2.1?

With Kerning Editor V2.1 you can easily define your own kerning factors for character combinations and add these to the PFM files. Prior to this latest version of the kerning editor, it was only possible to change the kerning factors with a scroll bar. To make the process more efficient, particularly if you already know the exact value required, there is now a box available to enter the value from the keyboard.

It is often difficult to judge kerning based on a pair of characters alone. In a separate box, it is now possible to preview a text sample consisting of several characters for better comparison. Optional help lines, a display of the original kerning and the zoom feature further facilitate the editing process. We have also added a printing option which allows you to print out and archive complete sets of fonts and corresponding kerning tables.

Installation with EuroCUT Professional

The kerning editor is part of EuroCUT Professional and is automatically installed with that program. Upon successful installation, the ***Kerning Editor*** icon appears in the EUROSYSTEMS window of the Windows Program Manager.

Launching the Kerning Editor

Activate the kerning editor by double-clicking on its icon. The following dialog box appears:

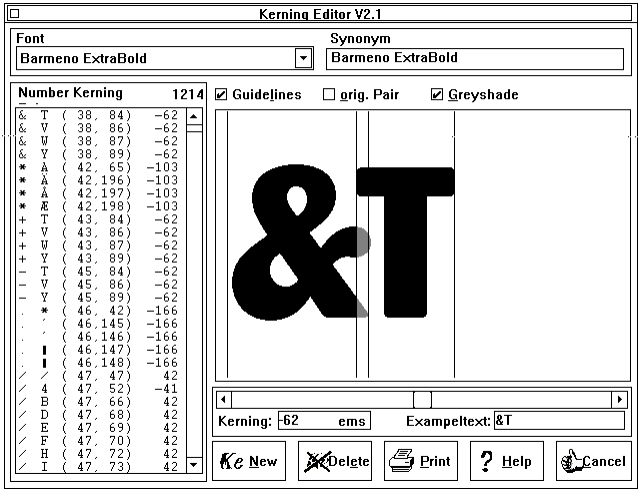


Fig. 168: *Kerning Editor* Dialog Box

At the top of the dialog box, you will find a combination box in which you can choose a particular font either by its name or its alias. The kerning table is located on the left side of the dialog box. The ***Display*** window for the character pair or combination is on the right.

Immediately below the display, you will find the scroll bar for modifying the kerning factor, followed by the box for entering specific values, and the sample text display. Upon startup of the kerning editor, the program automatically loads the first available ATM font (type 1) and displays the corresponding kerning data.

Operation

Use your mouse to move around quickly in the dialog box. You can also use the TAB key.

Kerning Window and Kerning Tools

The ***Kerning*** window displays the pair or combination of characters whose kerning you wish to modify. If you check the box for the ***Gray Scale*** option, the first character will be shown slightly lighter in tone than the second one and additional characters displayed in the ***Sample Text*** box will be lighter still. If ***Gray Scale*** is not selected, all characters are displayed in black.

In addition you can have the ***Kerning*** window display the width of each character with guidelines on each side. The guidelines for the first character are shown in blue, for the second in red. You may switch this option on and off by checking or unchecking the ***Guideline*** box above the ***Display*** window.

Finally, you have the option to display the original kerning with the ***Original Pair*** feature. If this is checked, the second character will be displayed in its original position, prior to any modifications. It is shown in the same tone as the first character.

Note: *This option is always deactivated when you first get into the kerning editor. Most users will activate this feature only temporarily since having a third character displayed in the window can be somewhat confusing.*

Changing the Display Size

If you move your mouse into the display area, you will find that the cursor takes on the shape of a magnifying glass. This ***Zoom*** tool gives you the option to zoom in or out on the character combination. To zoom in (magnify), press the left mouse button.

To zoom out (reduce), press the right mouse button. Note that the point at which the cursor is located when you do this becomes the reference or center point for the modified view.

You can always revert back to the original size (or ***normal*** view) by clicking on the selected character pair in the kerning table.

Note: *It is possible to repeat the zoom in or zoom out procedure for further magnification/reduction. If you do this, slight inaccuracies may occur in the display of the spacing.*

To make sure the display is current, simply click once on the scroll bar below the window.

Selecting a Font

The drop-down list box titled ***Font*** is where you can choose a font for kerning. Simply click on the arrow next to it, and make your selection by double-clicking on the font name. If there is not enough room in the box to display all available fonts at once, use the scroll bar to move through the listing. If you have already been modifying a font and are attempting to select a new one, a dialog box will appear in which you must decide whether or not to save the changes you made previously. Once a new font is selected, all pertinent data is loaded, and the first available character combination is displayed in the window.

Selecting Character Combinations

To select the appropriate pair or combination of characters, double-click on it in the kerning table. If the combination you are looking for is not among the ones displayed, use the scroll bar to move quickly through the listing. The number of available pairs is displayed immediately above the kerning table.

Note: *The list of kerning pairs is sorted based on the ANSI set of characters.*

Once you have made your selection, the character combination is displayed both in the kerning window and the ***Sample Text*** box.

Changing Kerning Values

There are several different ways to change kerning values with the scroll bar located below the ***Kerning*** window:

1. Click on the arrows at either end of the scroll bar to change the kerning factor by increments of one (1).

2. Click on the areas in the scroll bar to the left or right of the indicator to change the kerning factor by 1/16 of the reference character “m”.

3. Click and drag the indicator to the left or right. At the far end on the left is the minimum, at the far end on the right the maximum kerning value. The minimum kerning value is equal to the negative character width of the first character; the maximum kerning value is equal to the greater (positive) character width of both characters.

All kerning changes are reflected numerically in the ***Kerning*** box below. You may also change kerning factors by entering a specific value directly in this box. Simply click on it and enter a positive or negative value from the keyboard. The position of the scroll bar indicator changes accordingly, so that further modifications can be made using either method.

Using the Sample Text Box

It is often easier to determine correct kerning values by looking at an entire word or text string rather than just a pair of characters. For this purpose, simply click on the ***Sample Text*** box and enter additional characters.
Provided the word or text string contains the selected kerning pair, it will be displayed in the kerning window. In case the selected string is too long to be displayed in its entirety, you may want to use the ***Zoom out*** option described above (see ***Changing the Display Size***).

Entering a New Kerning Pair

Clicking on the ***New*** icon below the ***Display*** window activates a dialog box containing a list of the complete character set for the font you have selected. Since there is generally not enough room to display all of them in one window, the characters are divided into two groups, number 0 through 127 and 128 through 255. Select one or other group by clicking on the adjacent dots.

To select a new kerning pair, find them in the appropriate part of the list and click on each of them. This will display the pair in the ***Kerning*** window. If you select more than two characters at one time, only the last two will be displayed.

Note: *If you select only one character rather than two, an error message appears.*

If you are satisfied with your selection, click on the ***OK*** icon to add the new character pair to the kerning table. Otherwise, click on ***Cancel.***

Only ***new*** kerning pairs can be added to the table. If the selected character combination is already listed, you will get an error message. Now you can proceed with changing the kerning values of this combination as described above.

Caution*: If you select a kerning pair in a font for which no kerning table exists, a new table will be defined for this font. In order for the Adobe Type Manager™ to recognize this data, the following procedure is required when leaving the kerning editor:*

1. Close all applications
2. Quit Windows (do not restart!)
3. Switch to the directory which contains the PFB files, generally C:\PSFONTS
4. Delete the file called ATMFONTS.QLC by entering the following command: C:\del atmfonts.qlc. Now when you restart Windows, the updated kerning data will be available to the Adobe Type Manager™

Deleting a Kerning Pair

Select the kerning pair you wish to remove from the table. Click on the ***Del*** icon in the kerning editor to delete the selected character combination. Once it is deleted, the next pair in the list will automatically be displayed.

Printing Font Data

To obtain a printout of all data pertaining to a font, including the complete set of characters and symbols as well as the corresponding kerning table, click on the ***Print*** icon in the kerning editor. A box appears to inform you of the printing status. The printing process may be aborted once the ***Cancel*** icon becomes available in the ***print status*** box***.***

Note: *If there is no kerning table available for a particular font, only the complete set of characters and symbols will be printed.*

Saving Kerning Data

Once you have completed editing a kerning table, there are two ways of saving the new data:

1. Select the next font you need to edit in the font list box. If you have made any changes to the previously selected font, a

dialog box appears asking you whether or not you wish to save these changes.

2. The same dialog box appears when you click on the ***Quit*** icon to close the kerning editor.

Leaving the Kerning Editor

There are two ways to close the kerning editor:

1. Press the ENTER key or click on ***OK.*** If you have made any changes to the font you last selected, a dialog box asks whether or not to save these changes.

2. Press the ESC key or click on ***Cancel.*** This will cause the text editor to close without saving any changes made to the last font selected. If one or more kerning tables have been modified, you will be asked whether you would like to restart Windows.

Note*: Depending on the size of the Font cache specified in the ATM control panel, changes made to the kerning of a particular font, even though they are saved on the hard disk, may only become available once you restart Windows. This is due to the fact that the modified font may still be in cache storage. To make sure any changes are implemented immediately, we recommend restarting Windows every time.*

8. EuroFONTER

Preface

In a lot of large software packages - especially in the publishing and signmaking sector - a variety of different fonts are needed. For this reason large numbers of fonts are supplied in artwork packages such as CorelDRAW. Thus it is very difficult to keep track of all fonts available to the system.
It is difficult to manage fonts using the Adobe Type Manager or the TrueType fonts using Windows. Either you soon stop trying to do this and only install the fonts you need additionally or you forget to deinstall fonts which are no longer required. The result is a computer “overloaded” with fonts and an overfilled hard disk. Furthermore, it takes considerably longer to start applications and the search for a particular font is slowed down as speed depends on the list of fonts to be searched through.
The EuroFONTER is a convenient solution to this problem. The EuroFONTER makes it very easy to organize and manage your fonts (Adobe Type 1 and TrueType fonts).

Range of functions

- Searching complete data carriers (disk, hard drive, CD-ROM or individual directories for Adobe Type 1 (Postscript) and TrueType fonts
- Font preview – font size specified by user
- Creating catalogs of fonts
- Installation & deinstallation of one or several fonts
- Installation & deinstallation of complete catalogs
- Installation of fonts and simultaneous deinstallation of previously installed fonts
- Printing out sample fonts from a catalog with sample texts, font sizes and line-spacing specified by user.
- Managing catalogs simply using drag & drop
- Copying fonts and related files to other data carriers
- Printing font data sheets
- Management of alias links
- Central management of fonts by importing already defined catalogs
- Extensive selection possibilities
- Finding fonts in all catalogs

Notation

The following symbols and terms have been used:

General note

Drag & drop

Context menu

Shortcut (key combination)

How the EuroFONTER Works

The EuroFONTER Desktop

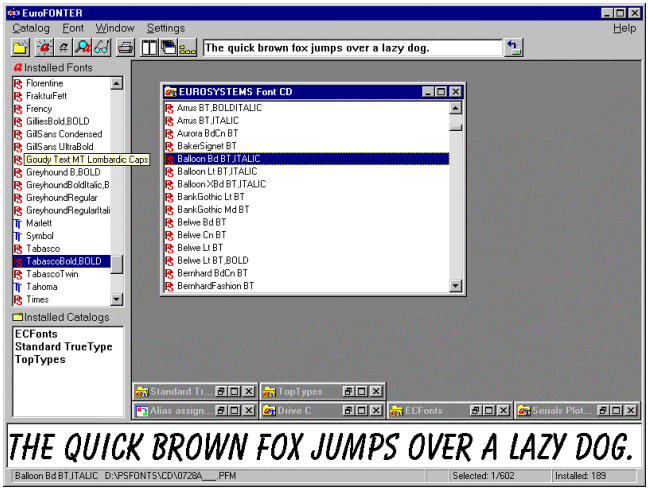


Fig. 169: The EuroFONTER Desktop

Menu Bar

Use the ***menu bar*** to select the desired function.

Tool Bar

Beneath this menu bar you will see the ***tool bar*** with the most important menu items which you can select be clicking with the mouse. There is also a text field, where you can enter and change the text shown in the sample text display.

Installed Fonts

On the left a list of ***Installed Fonts*** shows the fonts available every time you restart Windows. You can deactivate individual fonts in this list.

Installed Catalogs

The list of ***Installed Catalogs*** below the list tells you which catalogs are selected. You can deselect complete catalogs in this list.

The first time you use EuroFONTER the list of catalogs is blank and you can fill it with catalogs using drag & drop.

Open Catalogs

Open catalogs are displayed as boxes on the working area. The box headings contain the catalog names.

Fonts Contained in the List

The ***fonts*** contained in the list in the catalog box are preceded by a red PS (for Postscript fonts) or a blue TT (for TrueType fonts). By double-clicking on a font name you can obtain detailed information about the font.

Closed Catalogs

Closed catalogs are displayed as short bars in Windows 95 and Windows NT 4.
If the name of the catalog does not fit into the bar entirely, EuroFONTER displays the full name in a small box above the bar, when you move the mouse cursor to the bar.
In Windows 3.x closed catalogs are displayed as icons.

Sample Text Display

In the ***Sample Text Display*** the text entered in the tool bar is displayed. The size of the display window can be changed in ***Setup.*** You can switch between normal and enlarged display by pressing CTRL+Num+.

Status Bar

At the bottom of the screen there is a ***status bar*** showing you the name of a selected font and Its related file.
The letters “NA” on the right of the status bar indicate that a font is **not available** (for example when the CD containing the font has not been inserted).
The box on the right of this informs you about the number of selected fonts in the current catalog.
The number on the extreme right shows the number of fonts installed.

How to Work with EuroFONTER

Most jobs - especially creating and managing catalogs - can be done with **drag & drop**. This means that you select the fonts in a list and then move them by holding down the right mouse button. When you hold down the right mouse button while moving the mouse cursor, the cursor turns into the shape of an or , when several fonts are marked. If you press the CTRL key as well, the copying operation is started. The mouse cursor turns into the shape of an or .

When you release the right mouse key on a catalog, the selected fonts in that catalog will be moved or copied. You can also select fonts by moving the mouse cursor over the list of installed fonts and then releasing the right mouse button again.

You can install complete catalogs by holding down the right mouse button on the title row of the catalog and moving it to the list of installed catalogs, keeping the right mouse button held down and then releasing it again.
To deactivate a catalog, highlight the catalog in the list and simply drag it to a free space in the working area.

In addition, the most important functions are available to you as a ***Context Menu.*** Simply right-click in the catalog list when you want to select functions from the font menu. You can obtain functions from the ***Catalog*** menu by right-clicking on the catalog title .

Sample Jobs
The following sample jobs are intended to illustrate the EuroFONTER's major fields of application. You will learn about the EuroFONTER's most important functions. For further information on the individual menu items please see the ***Reference Section.***

Sample Job 1	Creating a font catalog, assigning fonts and generating an initial set of fonts
Sample Job 2	Activating fonts on CD-ROMs
Sample Job 3	"Cleaning up" the hard drive
Sample Job 4	Making fonts available to all workstations on a file server

Sample Job 1: Creating a Font Catalog, Assigning Fonts and Generating an Initial Set of Fonts

You want to look at the fonts already on your hard drive and sort them if necessary.
Select the menu item ***Font/Search to New Catalog***. You will be asked to enter the name of a new catalog to record the result of the search.

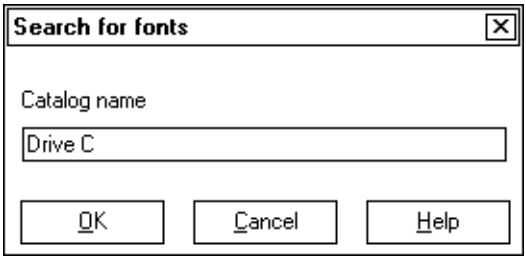


Fig. 170: Assigning a Catalog Name

Enter Drive C.

In the upcoming box for selecting the directory first enter the name of the directory to be searched in the ***Source name*** field. You might also enter a different name in other search procedures (e.g. when you would like to list several data carriers in one catalog).This would make no sense in this case, as the search is to be confined to a single data carrier.

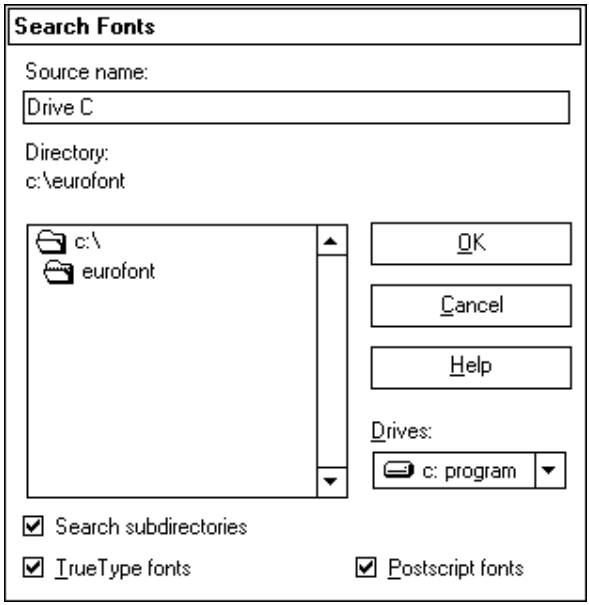


Fig. 171: Finding Fonts

By clicking on file **C:** you can select the normal hard drive directory for the search. The ***Search Subdirectories*** option is activated at the bottom of this dialog box. This lets you instruct the search routine to look through all subdirectories in C:\.
With the ***TrueType fonts*** and ***Postscript fonts*** options you can specify if you want to search for TrueType, Postscript or both font formats.
After you have clicked the ***OK*** button to confirm your selection, the EuroFONTER begins to search all directories on your C: hard drive. The most recently found font and its related files will be shown in a dialog box.

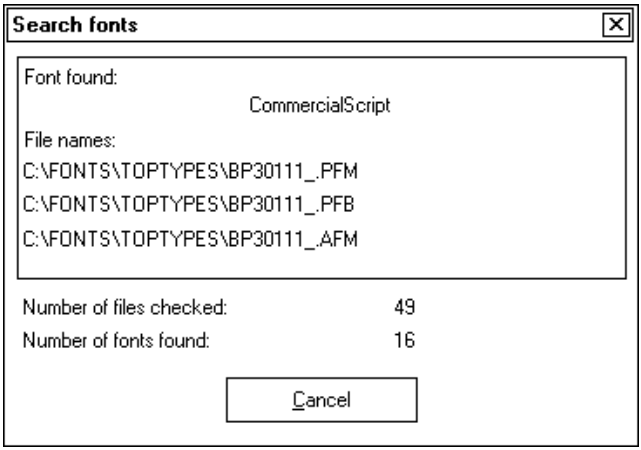


Fig. 172: Number of Fonts Found

You have the possibility of canceling the search if you think that all directories which are interesting for you have already been searched.

After the search has been completed, you will find all the fonts which are located somewhere on the C drive in the **C drive** catalog. If you click on one of these fonts with the mouse, the name of the font and the name of the related ttf or pfm file will be displayed in the status bar at the bottom of the screen.
A sample text in this font will be shown above this status bar.
This display possibility also exists for the list of currently installed fonts on the left side. A single click with the mouse cursor on a font opens the preview window.
We will create a catalog via the menu item **Catalog/New**, enter the name **Standard** and click on the **OK** button. Move the fonts you use daily into this catalog. For a better overview choose the menu item **Windows/Tiling**. Your two catalogs will be positioned next to each other on the working area. Right-click with the mouse button on the first font in the **C Drive** catalog which you would like to have constant access to and hold down the mouse button. The mouse cursor has now changed into the shape of an . This symbol indicates that you can move the selected font. With the right mouse button held down, pull the cursor over the **Standard** catalog and then release the mouse button again. You will now find the font you have just selected in the **Standard** catalog instead of in the **C Drive** catalog.

If you want to leave the font which is to be moved in the original catalog as well, press the CTRL key before releasing the right mouse button. The cursor then changes into the symbol . If you release the right mouse button while holding down the CTRL key, the font will be copied to the new folder.
Proceed in this way with every font you would like to install later as a standard font. You can also move or copy several fonts simultaneously. To do this, select the first font to be moved/copied and then hold down the CTRL key. Now select each further font with a left click of the mouse. When you have selected all the desired fonts, hold down the right mouse button while moving the mouse until the mouse cursor is located in the target catalog. During the move the mouse cursor has the shape of three overlapping symbols.

Once you have moved all fonts that you wish to be constantly available to the ***Standard*** catalog, you can close it either by clicking the button or by double-clicking on the button of the catalog.
Right-click on the catalog name in the window title and select ***Rename.*** Type ***Rest*** in the input field and click ***OK***. Close the catalog.

Activate the complete ***Standard*** catalog by clicking on the catalog's icon and selecting ***Catalog/Activate.***
In the upcoming dialog window you have the possibility of selecting the catalog ***once*** (only in the current Windows session) or ***permanently*** (in every Windows session).

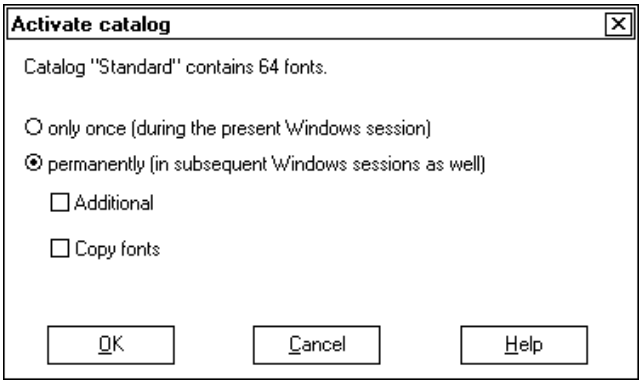


Fig. 173: *Activate Catalog* Dialog Box

The ***Only Once*** option is of interest if you require one or several fonts for a short time. The ***Permanently*** option is the default. You must also deactivate the ***Additional*** option, as you only want to activate the standard fonts. You want to add any other fonts that have previously been installed only as required (for this you need the ***Additional*** option). When installing the fonts you can also have them copied to standard font directories. If this option is deactivated, the fonts will be activated from the place where they are currently to be found. This is important when your computer is part of a network. When you have made sure that the fonts are accessible at any time, you can also activate them over a file server. If you confirm your entries with ***OK,*** all previously installed fonts will first of all be deactivated and all fonts in the ***Standard*** catalog will be activated. After this procedure has been completed, you will find the ***Standard*** folder in the list of ***Installed Catalogs***. The icon of this catalog has been changed into an open folder on the working area.

Sample Job 2: Activation of Fonts on CD-ROMs

Nowadays a lot of software producers supply font CDs in the sector of printing/publishing/design software with fonts located in subdirectories (sorted alphabetically or according to font type). In this case you first have to go to the subdirectories in question, highlight and add the desired font and then go to the next directory and highlight and add the desired font. The EuroFONTER makes this much easier. Insert the CD that you would like to have searched in your CD-ROM drive and select the menu option ***Fonts/Search***. Enter the name of the CD-ROM. Confirm the name by clicking on ***OK*** and select the CD-ROM drive (for example D: \) in the following dialog box. Make sure the ***Search Subdirectories*** option is also checked. After you have confirmed your selection with ***OK,*** all fonts will be added to the new catalog.

With CD-ROMs this process can take some minutes depending on the size of the CD and the speed of the CD-ROM drive.

If you would like to obtain more information on the font type shown (copyright, path names, postscript name etc.), double-click on the font in the catalog.

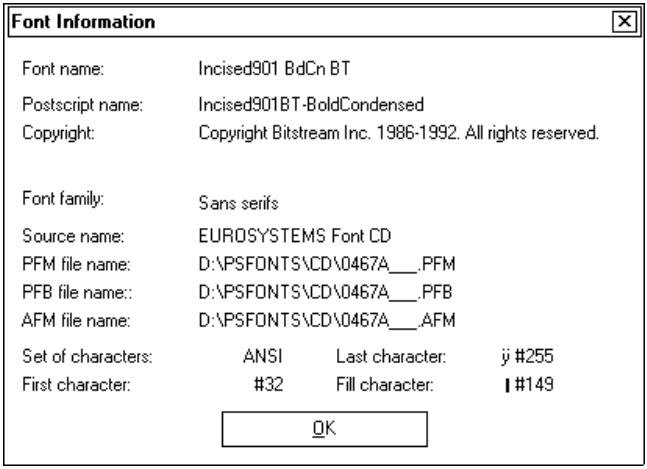


Fig. 137: Font Information

If you would like to install a font in this new list, right-click on the font and keep the mouse button pressed down. The mouse cursor will change into the symbol . With the right mouse button held down move the mouse cursor over the list of installed fonts and then release it. In our case, we want to install the font additionally so that it is available again next time we resume work. As the font is being installed from a CD and the font CD is not always inserted, activate ***Copy Fonts***. This will copy the required files into the standard font directories so that they can be activated from there. When you have made your selection, click on ***OK***. Then you will find the font you have just installed in the list of installed fonts.
You can repeat this procedure as often as you like.

Please make sure that you only activate the fonts that you require frequently or in the near future. Copying from CD-ROMs fills up your hard disk very quickly.

Deinstalling fonts
It often happens that you work several days on a job for which you have installed one or several fonts permanently. When the job is finished and the font is no longer required, select the fonts no longer needed in the list of ***Installed Fonts*** and select ***Font/Deactivate***.

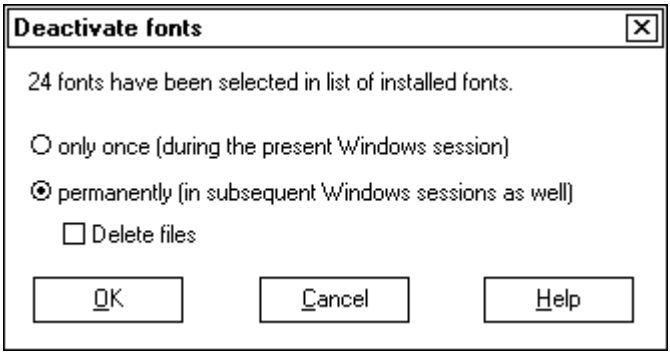


Fig. 174: Deactivate Fonts

If you need space on your hard disk, activate the ***Delete Files*** option.

Sample Job 3: Cleaning Up the Hard Drive

You will certainly often have been annoyed because some applications copy fonts to several different directories when they are installed. Often the fonts are to be found more than once on your hard drive and thus take up storage space unnecessarily.

The following sample job shows how you can “clean up” your fonts properly:

It is assumed that each font has a distinct file name, so that the same file name indicates the same font. In addition, you should have sufficient free capacity on your hard drive so that the fonts can be temporarily duplicated on to it.

Search the complete C: hard drive for fonts and create a new catalog called ***All Fonts***, as described in ***Sample Job 1***, but change the source name into ***C: Drive***. If you have installed a further drive, search it as well by right-clicking in the list just generated, choosing ***Search To This Catalog*** from the context menu and then entering ***X: Drive***, where you of course replace the “X” with the name of the selected drive.

Now you will have a list of all fonts to be found on your hard drive. You may notice that some of the fonts are duplicated as they are to be found in several different directories.

If you would like to have the same fonts installed again after cleaning up, you should now create a catalog of ***Current Fonts***. Click on a font in the list of installed fonts, select all the fonts by pressing CTRL+A and drag the fonts to the catalog of installed fonts.

Select ***Basic Settings*** from the settings menu and change the target directories to ***C:\Fonts*** (or simply **C:\F**, since the shorter the path name is for the fonts installed later, the lighter the load on the main memory and the configuration files).Click on ***Selection*** next to the path name and select this directory in the directory catalog. Normally this directory will not yet exist. You can create the directory as follows: select ***C:\Directory***, click on ***New Directory***, enter ***Fonts*** (or ***F***), click on ***Generate***, double-click on the newly generated directory and then click on ***OK***.

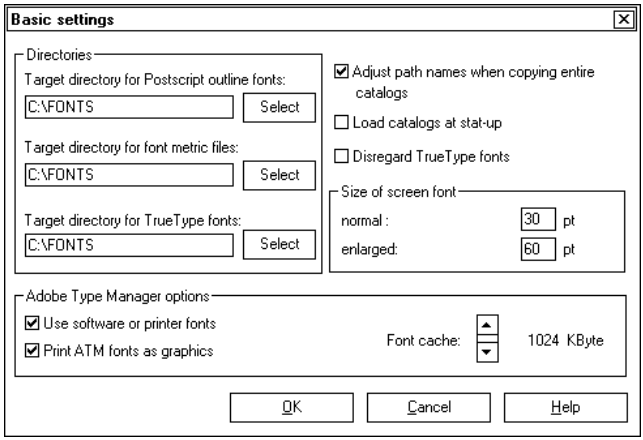


Fig. 175: EuroFONTER *Basic Settings* Dialog Box

In addition, activate ***Adjust path names when copying entire catalogs*** in ***Basic Settings*** and click on *OK* to confirm your changes.

Select all the fonts in the ***Current Fonts*** catalog and drag them to the list of ***Installed Fonts*** with the right mouse button held down. Select the ***Permanent*** option in the ***Activate Fonts*** dialog , deactivate ***Additional***, activate ***Copy Fonts*** and click on OK. This first of all deselects all fonts, copies the fonts in the list of ***Current Fonts*** to the ***C:\Fonts*** **(or** ***C:\F****)* directory and then activates them from there. You have now reselected the same fonts as previously, but the fonts will be loaded from the new directory in future.

Next, all the fonts on your hard drive should be moved into the same ***C:\Fonts*** **(or** ***C:\F***) directory. To do this, create a new ***Copy*** catalog , highlight all the fonts in the ***All Fonts*** catalog and drag a copy of this list to the ***Copy*** catalog with the right mouse button held down and the CTRL key pressed down. Right-click the window title of the ***Current Fonts*** catalog, select the ***Copy*** option and choose the ***C: \Fonts*** **(or** ***C:\F****)* directory as target directory. All the fonts on your hard drive will now be copied to the ***C:\Fonts*** directory. Select all the fonts in the ***Copy*** catalog using CTRL+A and delete them with the DEL key both from the list and from the hard drive by clicking ***Delete Files*** in the dialog box which appears.

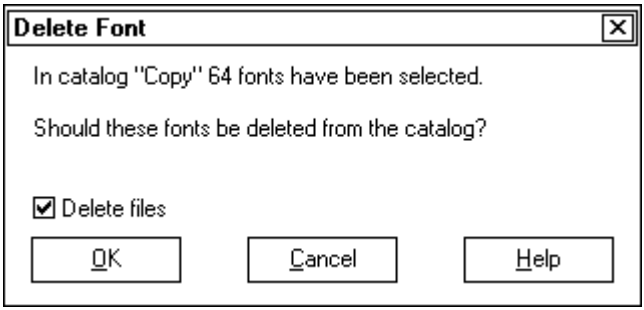


Fig. 178: *Delete Fonts* Dialog Box

All the fonts will now have been moved to the ***C:\Fonts*** (or **C:\F)** directory.

You can now delete the ***Copy*** and ***All Fonts*** catalogs using CTRL and DEL. Create a new ***All Fonts*** catalog by clicking on ***Fonts/Search to New Catalog*** and having the ***C:*** **** directory searched.

Exit the program and restart Windows. Windows has possibly not released all the TrueType fonts while it was deactivated and so they may not have been deleted. After restarting Windows you can delete them now as follows:

Open the ***All Fonts*** catalog, right-click in the list and choose ***Select Fonts***. In the dialog box which appears type ***C:\Fonts*** (ending with ****) in the ***Contains in Path Name*** box, check ***No*** and click on ***OK***.

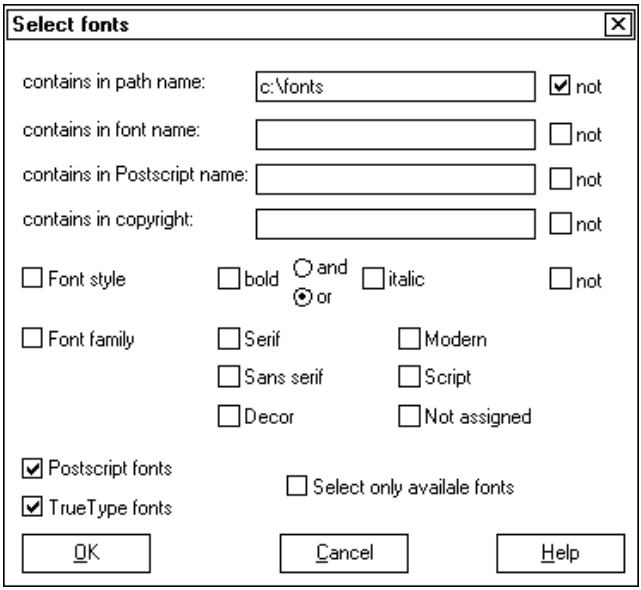


Fig. 179: *Select Fonts* Dialog Box

If there are still fonts in other directories besides ***C:\Fonts*** on your hard drive, you have to select them now. You can see the number of fonts selected in the status bar. Press the DEL key and confirm ***Delete Files***. Any superfluous fonts should now have been deleted from your hard drive.

Sample Job 4: Making Fonts Available to All Workstations on a File Server

If several workstations in a network have access to the same fonts, it is a good idea for one person to create the basic catalog of these fonts and have all users work with the same catalog. This makes communication considerably easier and also saves the work of having to create new font catalogs for each workstation.

For the following procedure you should either be registered as an administrator in the network or at least possess a directory of writing and reading rights agreed with the administrator. In this example the directory has the path name ***H:\Fonts*** *and should have the same name for all workstations, as otherwise the catalogs cannot be used.*

First create separate catalogs for all the fonts available to you, for example on CD-ROMs, **(Font/Search to New Catalog)** and copy the fonts to separate subdirectories under the ***H:\Fonts*** directory by selecting ***Catalog/Copy.*** Create a directory with an appropriate name under ***H:\Fonts*** using ***New Directory*** in the directory selection dialog box. Choose this directory as target directory for copying.

First make sure that ***Adjust path name when copying entire catalogs*** *is checked in the* ***Basic Settings****.*

Select ***Catalog/Save*** to save every copied catalog under a distinct name in the ***H:\Fonts*** directory.

Use these catalogs as the basis for new catalogs if you want to provide users with special catalogs. Save these catalogs in the ***H:\Fonts*** directory as well.

For the following operations you only require reading rights in the ***H:\Fonts*** *network directory.*

Users can now import these catalogs from the ***H:\Fonts*** directory without having to know where the single fonts are located. The necessary information is contained in the catalogs that you can create over ***Catalog/Import***.

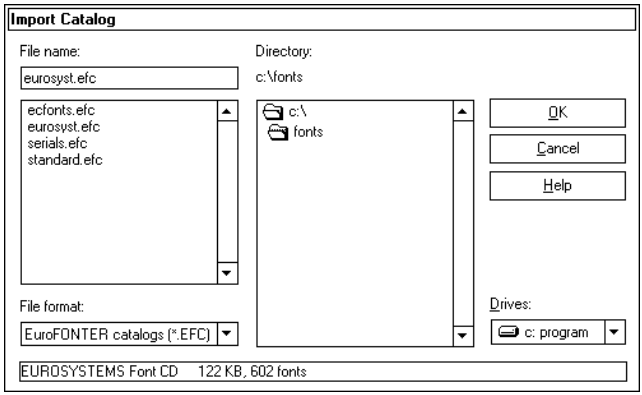


Fig. 180: *Import Catalogs* Dialog Box

In the ***Import Catalogs*** dialog box the full catalog name, the number of fonts it contains and the size of the catalog file is shown in the status bar so that you have the necessary information before loading the catalog.

Reference Section

Catalog

New

INS

If you require a new empty catalog to manage your fonts, you can create it using this menu item after entering a catalog name not exceeding 50 characters.
If a catalog with the entered name already exists, you will be informed and can change the name of the new catalog.

Open

CTRL+O

This opens (closed) catalogs displayed as icons in the working area. Click on the catalog to be opened and select this menu item.
A catalog can also be opened by double-clicking on its icon.
If ***Load Catalogs at Start of Program*** is deactivated in ***Basic Settings***, the contents of the catalog will not be loaded until the catalog has been opened.

Close

CTRL+F4

This closes an (open) catalog displayed as a list. The catalog appears on the desktop as an icon.
A catalog can also be closed by clicking with the mouse on the **_** or **X** buttons.

Rename

CTRL+U

This lets you rename a catalog. Click on a catalog and select this menu item. It makes no difference if the catalog is open or closed. As with producing a new catalog, the catalog name must not contain more than 50 characters.

Activated catalogs cannot be renamed. If you want to give an activated catalog a new name you first have to deactivate it, rename it and then activate it again.

Right-click either on the icon of the closed catalog or on the title bar of an open catalog and select ***Rename.***

Change drive name

It may sometimes happen that the name of a CD-ROM drive or a hard drive changes when a part is added or removed. When an additional hard drive is built in, for example, the CD-ROM drive name changes from D: to E:.
If you select this menu item, font CDs do not all have to be read back once again and catalogs created from different sources do not have to be recreated.
Select the old and new drive names in the dialog. All fonts beginning with the old drive name in the path name will be renamed in the catalog with the new drive name. None of the other fonts will be affected by this operation.

Example:
Changing the drive name from D: to E:

Font name	Old PFM-/TTF-path	Old PFB-path	New PFM-/TTF-path	New PFB-path
Arial	c:\windows\fonts\arial.ttf		c:\windows\fonts\arial.ttf	
Clarendon BT	d:\psfonts\a_c\0283a___.pfm	d:\psfonts\a_c\0283a___.pfb	e:\psfonts\a_c\0283a___.pfm	e:\psfonts\a_c\0283a___.pfb
ECBanff	d:\pspfonts\ecfonts\ecbanff_.pfm	d:\pspfonts\ecfonts\ecbanff_.pfb	e:\pspfonts\ecfonts\ecbanff_.pfm	e:\pspfonts\ecfonts\ecbanff_.pfb
Helvetica	c:\psfonts\pfm\hv_____.pfm	c:\psfonts\hv_____.pfb	c:\psfonts\pfm\hv_____.pfm	c:\psfonts\hv_____.pfb
Oranda BT	d:\ttfonts\n_p\tt1204m_.ttf		e:\ttfonts\n_p\tt1204m_.ttf	

The drive name cannot be changed in selected catalogs. Selected catalogs cannot be renamed. If you want to give a selected catalog a new name you first have to deselect it, rename it and then select it again.
However, you should always do this when the drive names changes, as otherwise the fonts may not be available to the system because of the wrong path names.

Right-click either on the icon of the closed catalog or on the title bar of an open catalog and choose ***Change Drive Name***.

Copy

CTRL+C

This permits you to copy the relevant files of all fonts in a catalog to another data carrier or to another file. It is useful to choose this option, for example, if you have enough space on your hard drive to copy a complete font CD or if you have created a catalog of fonts from which you frequently require one or other font and do not want to insert the appropriate CD each time.
First you will be asked for the directory into which the fonts are to be copied. In this dialog you can create a new directory under the currently selected directory using the ***New Directory*** button. You can change the proposed directory name - the first eight characters of the catalog name - in an editing field. Click with the mouse on ***Generate*** to create the directory. The directory will then appear in the left window under the present directory name. Double-click on this directory and then click ***OK.***
The fonts will then be copied to the target directory. You can stop copying by using the ***Cancel*** button in the upcoming status dialog, which informs you about the font currently being copied and its file names.

*If you have activated **Path names for copying entire catalogs** in the **Basic Settings,** the font path names will be changed in the new directory.*

Right-click either on the icon of the closed catalog or on the title bar of an open catalog and select ***Copy***.

Delete

CTRL+DEL

This menu item deletes the selected catalog when you no longer require it.

If the font files of the fonts contained in the catalog are also to be deleted, select all the fonts in the catalog first and remove the fonts using ***Font Type/Delete***, before you delete the catalog.

Selected files cannot be deleted. Deselect the catalog first.

Right-click either on the icon of the closed catalog or on the title bar of an open catalog and choose the ***Delete*** option.

Activate

CTRL NUM+

Catalogs can be created not only to give you a better overview of your fonts but, above all, to enable them to be selected and deselected together. If, for example, you create catalogs according to order type, document type or client, you can activate all necessary fonts via this menu item with two mouse clicks and **deactivate** them again at the end of your work.

When activating fonts, you can first decide if you will require the fonts only once during the present Windows session or if the fonts should be available permanently in the subsequent Windows sessions as well.
If, for example, you only want to load an existing document and print it out, it suffices to activate the fonts used in this document only once. The fonts will then be available to you until you exit Windows.

Fonts which are installed only once do not appear in the list of installed fonts.

When permanently activating a catalog, you have the possibility of installing the fonts in addition to the fonts already activated (default) or first deactivating all previously activated fonts and then activating only the selected catalog. This is, above all, of interest when you have created a catalog containing important fonts in daily use. Deactivating the ***Additional*** option means that, after a single catalog has been activated, only the fonts contained in it will be available to the system.

The more fonts you install, the greater the strain on the main memory. Note that both the Windows font manager and the Adobe Type Manager can only manage a limited number of fonts at one time. Experience has shown that not more than 300 fonts should be installed if you wish to be able to have stable and rapid access to all fonts.

You should activate ***Copy Fonts*** especially when you want to activate fonts on a CD or a network directory to ensure more rapid access to the fonts. The font files will then be copied into the files which you have set up in the ***Basic Settings*** in the ***Directories*** field..

This option need not be turned on if the fonts are already on the hard drive.

*If you have activated **Path names for copying entire catalogs** in the **Basic Settings**, the font path names will be changed in the new directory.*

If at least one Postscript printer has been installed, the option ***Install Postscript files as automatically loadable fonts*** is additionally available to you for activating Adobe Type 1 fonts. This makes additional entries in WIN.INI for all Postscript printers, permitting Postscript drivers to load the fonts into the printers as so-called soft fonts. This speeds up the printing of the fonts. Note, however, that the number of fonts that can be loaded to the printer depends of the size of the printer memory and that exceeding the storage space may result in faulty printouts.

If a font is not found during activation, you will be asked to insert the data carrier with the source name that you entered in a catalog when searching. If you have changed the drive name for the given font (see ***Change Drive Name***), you can also change the drive name here. The drive name will then be changed for all subsequent fonts having the same source name.

After a catalog has been activated, it is displayed as an open file and shown in the list of ***Installed Catalogs.***

Right-click either on the icon of the closed catalog or on the title bar of an open catalog and then move the mouse cursor in the list of installed catalogs, keeping the right mouse button pressed down and then releasing it.

Right-click with the right mouse button either on the icon of the closed catalog or on the title bar of an open catalog and select ***Activate.***

Deactivate

CTRL+NUM:

Using this menu item, you can deactivate a catalog marked in the list of installed catalogs. To do this, first open the catalog if it is still closed, before selecting one of the following options:

With one-off deactivation the fonts are only deactivated for the duration of the current session, for example so as to make room in the font memory for one-off activation of other fonts.

The fonts are then available when Windows is started again.

With permanent deactivation the fonts are no longer available when Windows is restarted. You should not forget to deactivate the catalog again so as not to place an unnecessary strain on the font memory, especially when you have only activated a catalog so as to be able to work with the fonts in it for a short time (see section on ***Activate***).

If you are sure that the fonts are also available on another data carrier or in another directory, you can also delete the font files automatically when deactivating them, for example to make room on your hard drive.

Right-click on the catalog names in the list of ***Installed Catalogs*** and move the mouse cursor over to a free area of the screen, keeping the right mouse button pressed down and then releasing it**.**

Right-click on the catalog names in the list of installed catalogs and select ***Deactivate***.

Importing

Especially when operating networks with users who want to access the same fonts, you should only create catalogs once and simply import them to other workstations.
The most convenient way to proceed is for an administrator to set up a directory containing all the fonts that can be used in the network. This can easily be done, for example using ***Copy***. After that, the administrator creates catalogs to meet the users' needs and files them in a separate directory using ***Save as...***. The users then import these catalogs to activate any fonts they may need from the network. Of course, it is a prerequisite that the directories from which the fonts are to be activated have the same drive names and path names on all the workstations.
Before importing a catalog, you can see its name, file size and the number of fonts it contains in the status bar of the file selection dialog.
If a catalog with the same name already exists, an * is added to the name of the imported catalog, so the catalog name is unambiguous. After importing the catalog, you can rename it.

With this function you can also import catalogs if, for example, the CATALOGS. CTL file in the EuroFONTER index is damaged or accidentally deleted and the catalogs created thus no longer all appear in EuroFONTER.

Save as

You can use this function if catalogs are imported to other workstations or stored as backup copies in other directories. The first eight characters of the catalog name are recommended as a file name for the catalog file. In this case you also have the possibility of creating a new directory using a button. (see *Copy*).

In contrast to document-oriented applications this function does not determine in which directory the catalog files used by EuroFONTER are to be stored. The catalog files stored by EuroFONTER remain in the EuroFONTER directory. The file format is, however, the same so that in a peer-to-peer network it is also possible to import catalogs from another workstation directly from the EuroFONTER directory.

Print catalog **CTRL+P**

You can print out an overview of the fonts in a catalog in many different ways. Before printing, determine the appearance of the printout in the catalog printing options. You can verify your entries in a preview window.

Some printing variants are already predetermined in EuroFONTER so as to give a general overview of the possible printing possibilities. But you can also create your own variants and add them to the printing variants using the ***Save*** button. You can remove printing variants no longer required with the ***Delete*** button.

You can adjust the margins of the printout in the fields left margin, right margin, top margin and bottom margin.

If you activate all options, a printout can consist of font name, font size and user-defined sample (see variant *4 fonts, 3 sizes, 1 column).*

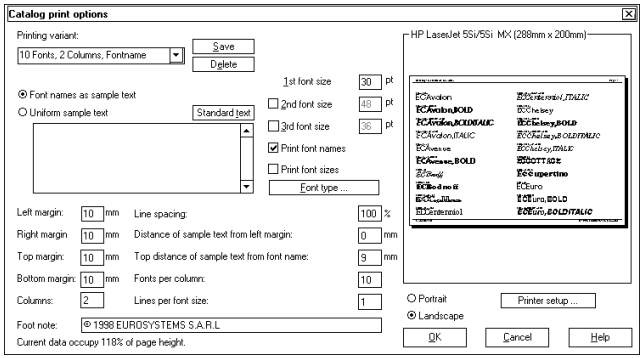


Fig. 181: *Catalog Print Options* Dialog Box

To explain the options, this variant will be modified as follows.

If the printout is to be made with only two different font sizes, for example 10 and 48 , deactivate the option ***3rd font size*** and type 10 and 48 in the fields ***1st font size*** and ***2nd font size.*** As a DIN A4 page is not completely filled with 4 fonts, you can now increase the number of fonts per column to 5. The page length will now, in fact, be 102% (see display window at the bottom of the dialog) but because of the large size of the second font this does not disrupt the overall font image (see variant ***5 fonts, 2 sizes, 1 column***).

If, instead of the existing text, which you can also load using the ***Standard Text*** button, you would like, for example, to use the alphabet as a font sample, delete the text and type it in the editing field as a uniform sample text. Line breaks are usually made when the margin is reached. This is, however, not suitable for the alphabet. For this reason, you should end the lines yourself with the CTRL+ENTER keys.

Note: *If EuroFONTER finds a line break in the sample text, the line is not automatically ended but cut off at the line break if the text does not fit into the column width. Furthermore, in the variant 10 fonts, 1 column, alphabet only one font size was used.*

If you turn off 2nd font size and type 20 in the field 1st font size**,** most fonts in the sample text should then fit into the column width, but it increases the number of **lines per font size** to 3 and the number of **fonts per column** to 10.

Since the size indication is no longer required for a single font size, **Print Font Sizes** can be deactivated.

Often one would like to accommodate even more fonts on a page and print out the font names as a sample text. To do this, activate the appropriate option and increase the ***1st font size*** to 30 points. With an oblong format even 2 columns can then be shown if you set the distance of the sample text from the left margin at 0mm (0 in) and instead increase the top distance of the sample text from the font name to 9mm (.354 in). (Variant ***10 fonts, 2 columns, font name***).

If this is too few fonts per page for your purpose and you do not mind the names of the symbol fonts not appearing, you can now deactivate the ***Print*** option, reduce ***1st font size*** to 8, increase the number of ***fonts per column*** to 4 and the number of ***fonts per column*** to 50. (Variant ***200 fonts / page***).

You can specify the font in which the font name, its size and the heading and bottom lines will be printed using the ***Font Type*** button.

*Please note that the printing variants are defined independently of the printer settings, which you can select using the **Printer Setup** button. When using a different paper format, the above-mentioned variants cannot be used unless the font sizes are changed. If you use different paper formats or printers to print out your catalogs, it is a good idea to use appropriate abbreviations for purposes of recognition when naming your printing variants.*

If you have selected a printing variant and click the OK button, you can determine in the dialog which appears whether you would like to print out all fonts in the catalog (***All***), only the marked fonts (***Select***) or certain pages (***From***: and ***To:*** boxes).

Print font information

CTRL+ALT+P

This prints data sheets for every font in a catalog with details of the file name, source name, Postscript name, copyright, font style, sample fonts in sizes 8, 12 and 24 points and a table of characters. The ***All*** option prints data sheets for all fonts in the catalog, the ***Selection*** option for all marked fonts, the ***Pages*** option for fonts ***From***: to ***To:*** in the catalog.

The data sheet is displayed in DIN A4 or letter-paper format.

Quit

ALT+F4

Use this button to quit EuroFONTER. All catalogs that have been created from scratch or changed will be saved.

Font

Copy

CTRL+ALT+C

This option is much the same as ***Catalog/Copy***, but only applies to the fonts marked in the catalog.

When you use this command, the font path names will not be changed in the catalog.

Right-click a font in the catalog list and select ***Copy***.

Activate

NUM*

This option is much the same as ***Catalog/Activate***, but only applies to the fonts marked in the catalog.

When you use this command, the font path names will not be changed in the catalog.

Right-click a font in the catalog and, keeping the mouse button held down, move the mouse cursor over the list of installed fonts and release the button again.

Right-click a font in the catalog and select **Activate.**

Deactivate

NUM/

This option is much the same as ***Catalog/Deactivate***, but only applies to the fonts marked in the list of ***Installed Fonts***.

Right-click a font in the catalog and, keeping the mouse button held down, move the mouse cursor over to an empty space on your working area and release the button again.

Right-click a font in the catalog and select ***Activate.***

Delete **DEL**

The fonts marked in the catalog are deleted from the list. If you activate ***Delete Files***, all files belonging to the font (PFM, PFB and AFM and TTF files) will be deleted from the data carrier.

Right-click on a font in the catalog and select **Delete**.

Search to current catalog **CTRL+INS**

With this you can search through either an entire data carrier, a directory with subdirectories or a single directory to find fonts and add them to the current catalog.
The name of the current catalog is proposed as source name, but it should be the same as the name of the data carrier being searched, especially in the case of CDs. If you want to activate a font later and the font cannot be found, EuroFONTER assumes that the data carrier is not available at present and asks you to insert the data carrier with the source name.

Select the drive on the right side and on the left the directory you would like to search.

Activate ***Search Subdirectories*** if not only the directory selected but also all the subdirectories contained in it are to be searched.

By checking or unchecking the TrueType fonts and Postscript fonts options you can widen or restrict the search to the font format in question.

Example:
If you would like to search an entire CD for TrueType fonts, select, for example, the D: drive on the right side and double-click the D:\ directory on the left, activate ***Search Subdirectories*** and ***TrueType Fonts*** and click ***OK***.

A status window will inform you about the progress of the search and shows the most recently found font and its file name.

The search can be ended at any time by clicking on the ***Cancel*** button.

Right-click a font in the catalog and choose ***Search This Catalog***.

CTRL+ SHIFT+INS

Search to new catalog

This menu item is much the same as the function ***Search in Current Catalog***. Before selecting the directory you will, however, also be asked to type the name of a new catalog in which you would like the result of the search to be listed. This is especially useful if you would like to read back entire CDs once again and list them in a separate catalog.

If no fonts are found, the newly created catalog will be deleted.

CTRL+P

Locate in all catalogs

It often happens that you open a document and a certain font used in it is not activated at present. You are certain that you have stored the font somewhere in your system but do not know where. This function can help you find the font again.
Type the name of the font (or at least an unambiguous part name). Then all catalogs are opened and the computer verifies if the name appears among the font names. The fonts found are stored in the ***Search Result*** catalog, so that the desired font can be activated from this catalog.

CTRL+S

Select

The function is especially helpful for compiling and filtering catalogs. It enables you to select parts of a catalog to copy them to another catalog or move them.
It is possible to select fonts according to path names, font names, Postscript names, copyright, font style and family. For this there must be an “and” link between the fields. That means that the fonts must fulfill all the criteria if an editing field contains an entry or the ***Font Style*** or **Family** options have been activated to select them. There is an “or” link between the Postscript fonts and TrueType fonts options, i.e. when both font types are activated, both will also be selected. (A font cannot be both TrueType and Postscript simultaneously.)
A condition can be canceled by checking the appropriate ***No*** option (if available).Thus it is possible, for example, to exclude a certain path name from the selection.
The ***Select only available fonts*** option verifies if the font can be activated and it will only then actually be selected. If, for example, the CD-ROM on which a particular font is to be found has not been inserted, the font will not be selected, even though it

otherwise meets the criteria.

Right-click on a font in the catalog and choose the ***Select*** option.

CTRL+A

Select all

This command selects all fonts in the catalog.

NUM+

Information

This function gives you further information e.g. path name, postscript name and copyright for the selected font.

You can also select this function by double-clicking the font in question.

Right-click a font in the catalog or in the list of installed fonts and choose the ***Information*** option.

Window

CTRL+ SHIFT+PgUp

Cascade

The open catalogs are arranged overlapping on the working area.

CTRL+PgUp

Tile

This function is especially useful when you want to reorganize your catalogs using drag & drop. All open catalogs are arranged on the working area in such a way that they fill up the working area next to and on top of each other so that you can see all the catalogs and can thus move them easily with drag & drop or copy them.

CTRL+PgDn

Arrange catalogs

All closed catalogs are arranged at the bottom of the screen.

CTRL+ SHIFT+PgDn

Close all

To obtain a rapid overview of all available catalogs, you can close all open catalogs at once with this function.

CTRL+ ALT+PgUp

Open all

All catalogs will be opened at once. This is especially useful if you would like to reorganize your catalogs using drag & drop and would like to open all catalogs to do this. After this, you will

normally select the ***Tiling*** function so as to have access to all catalogs.

Alias assignments

This submenu is available to you if the Adobe Type manager is installed and active.

If you would like to have your Adobe Type1 fonts shown under another name (e.g. their company names) in your applications, you can define a so-called alias link.
With the Adobe Type Manager, version 3, the fonts will then be represented with their alias assignments instead of their original names.
From version 3 of the Adobe Type manager on, the alias assignments will be made available in addition to the original names so that it is possible to have several alias assignments for one font. If, for example, you often load documents containing fonts whose font files are not available to you, you can define these font names as alias assignments and assign them to a different existing font, which should be similar to the original file, if possible.

After changing or deleting the alias assignments you must restart Windows because the modifications to the alias list will not be considered by the Adobe Type manager until Windows has been restarted.

CTRL+ALT+A

Change
Select an alias link in the alias assignments list and select this menu item if you would like to change an alias link.

You can also select this function by double-clicking the font in question.

If you change the font name, the alias link will be changed.
If you only want to change the alias assignment, the change is defined as a new link. You thus have the possibility of specifying several alias assignments for a font without having to type the font name again every time. If you only want to change the alias assignment without creating a new link, you subsequently have to delete the old link.

If you change the alias assignment and the font name, a new link will also be created.

Right-click a font in the list of installed fonts or in a catalog and holding down the right mouse button move the mouse cursor over the alias assignments and release it again. A link with an empty alias assignment and the respective font name will then be created for the selected fonts in the original list. After that, you only have to assign the alias assignments to the entries without having to type the font name again.

Right-click on an alias link and select ***Change***.

Delete **DEL**
This deletes an alias link if it is no longer required.

Right-click on an alias link and select ***Delete***.

DEL

Import to ATM.INI
This function imports all alias links to the ATM.INI file.

Import from ATM.INI
If you are working with an alias assignment for the first time, you should select this function once to see what links have already been specified in ATM.INI. You can also can verify if your changes have been imported correctly.

Initialize **CTRL+ ALT+I**
This function allows you to read back the list of ***Installed Fonts***. You should always do this when you have activated or deactivated fonts with other programs besides EuroFONTER.

Right-click on the list of ***Installed Fonts*** and select ***Initialize***.

Settings

Basic settings

With the basic settings you can set up the basic behavior for EuroFONTER besides the parameters that you would otherwise change via the Adobe control field (target directories for Postscript outline fonts and font metric files, use of software or printing fonts, printing ATM fonts as graphics and FontCache).

These fields are not active unless the Adobe Type Manager is activated).

In the target directories specify the paths to which EuroFONTER is to copy the font files with ***Activate*** in the ***Copy*** option. To do this, you can, using the selection buttons, open a directory selection dialog that enables you to select an existing directory and create a new directory using the ***New Directory*** button.

You should activate ***Adjust path names when copying entire catalogs***, when you activate complete catalogs with the ***Copy*** option and thus want to import the ***Target Directories*** in the catalogs directly, as mentioned above, or when the target directory in the copied catalog is to be imported using the ***Catalog/Copy*** function.

If you work with a large number of and, above all, large catalog lists, you can considerably speed up the program start by deactivating the catalog option when loading the program start. The catalogs will then not be loaded until a catalog is opened.

If, apart from the standard TrueType fonts, you work exclusively with Adobe Type 1 fonts and do not want to have the TrueType fonts displayed, select ***Disregard TrueType fonts***. The TrueType fonts will then be excluded both when searching data carriers and when displaying installed fonts.

This option is not available unless the Adobe Type manager is activated.

In the field ***Size of Screen Font*** you can define the size of the font preview at the bottom of the EuroFONTER screen. The text for the preview is specified in the tool bar. You can switch between normal and enlarged display using the ***Large Font*** function.

Standard font display

With this function you can select the font defined in EuroFONTER for the font preview window at the bottom of the screen. The font can, however, also be typed in the tool bar so that you can use the text for which you would like to select a particular font for comparing fonts.

Large font display

CTRL+ ALT+I

You can select this function to switch between normal and enlarged font display. You can adjust the height of the font in the ***Basic Settings*** under ***Size of Screen Font***.

Glossary

Drag & drop

“Drag and drop“ is used to describe a method of working that enables you to highlight objects (fonts or catalogs) with the mouse, move them with the mouse button held down and copy or move them when releasing the mouse button.

FontCache

The FontCache is a fixed storage area that is used by the Adobe Type Manager as a buffer for fonts. They are not generated again every time they are selected on to the screen and can therefore be displayed more quickly.

File Server

A file server is a central computer in a network containing files that can be read or written from every workstation (individual workstation).

Catalog

List of several fonts. When the manual speaks of «the» catalog, this refers to the catalog currently in the foreground.

Installed catalog

A catalog is installed when it appears in the list of installed catalogs. In addition, the fonts contained in it are represented a further time in the list of installed fonts. It is thus also possible to deinstall fonts found in an installed catalog.

Standard font directories

The standard font directories are the directories that you have indicated either in the Adobe Type Manager or in the EuroFONTER basic settings as target directories for Postscript outline fonts or font metric files. After the installation of the Adobe Type Manager,™ these are usually the C:\PSFONTS and C:\PSFONTS\PFM directories.

EuroFONTER Shortcuts

Shortcuts in the *Catalog* Menu

Menu Item	Shortcut
New	INS
Open	CTRL+O
Close	CTRL+F4
Rename	CTRL+U
Copy	CTRL+C
Delete	CTRL+DEL
Activate	CTRL+NUM *
Deactivate	CTRL+NUM /
Print catalog list	CTRL+P
Print font information	CTRL+ALT + P
Quit	ALT+F4

Shortcuts in the *Font* Menu

Menu Item	Shortcut
Copy	CTRL+ALT+C
Activate	NUM *
Deactivate	NUM /
Delete	DEL
Search to current catalog	CTRL+INS
Search to new catalog	CTRL+SHIFT+INS
Locate in all catalogs	CTRL+F
Select	CTRL+S
Select all	CTRL+ A
Information	NUM +

Shortcuts in the *Window* Menu

Menu Item	Shortcut
Cascade	CTRL+SHIFT+PGUP
Tile	CTRL+PGUP
Arrange catalogs	CTRL+PGDN
Close all	CTRL+SHIFT+PGDN
Open all	CTRL+ALT+PGUP
Change alias assignment	CTRL+A
Alias assignments	
change	CTRL+ALT+A
delete	DEL
Initialize	CTRL+I

Shortcuts in the *Settings* Menu

Menu Item	**Shortcut**
Large font display	CTRL+NUM+

6. FontManager

Chapter 6 describes how the **FontManager** works. The work of the font manager is data bank-oriented, i.e. a font from a selected data carrier is only installed once and can then be used on any of the available platforms.
When, for example, a font data bank is created in a network environment, thousand of fonts become available to all users. It is no longer necessary for each user to keep or organise sets of fonts locally on the data carrier.

It is still possible to use the Adobe Type Manager, but this is no longer necessary, as the essential font data from the postscript files are interpreted directly and made available for displaying texts for CoSign.

The number of fonts installed is only limited by the drive capacity available. Fonts can be individually modified with the integrated kerning editor.

Font Manager for URW BE Fonts

Introduction

The font manager for URW BE fonts works in a data bank-oriented manner, i.e. the fonts from any selected data carrier are installed once in any font data bank you wish. After that, the BE and SP files relating to the fonts are no longer required.

When, for example, a font data bank is created in a network environment, thousand of fonts become available to all users. It is no longer for each user to keep or organise sets of fonts locally on the data carrier.

The number of fonts installed is only limited by the drive capacity available. Fonts can be grouped in a number of different data banks.
Fonts which have been installed once are always available, even when, for example, jobs are loaded containing fonts that are not active at the moment or are not to be found in the active stock of fonts.
Fonts can be individually modified with the integrated kerning editor.

Note: *Two files are always required to install a URW BE font:*

1. The font Bezier file (*.be)
2. The font kerning file (*.sp)

Starting the Font Manager for BE Fonts.

The font manager can be started in two ways:

1. Via ***Font Management/Font Manager for URW BE Fonts*** in the ***Settings*** menu.

2. Using the symbol for the CoSign font manager which is located in the Windows task bar. A click on this symbol with the right mouse button activates the font manager menu. When you select ***Font Manager for URW BE*** fonts, the following dialog box opens:

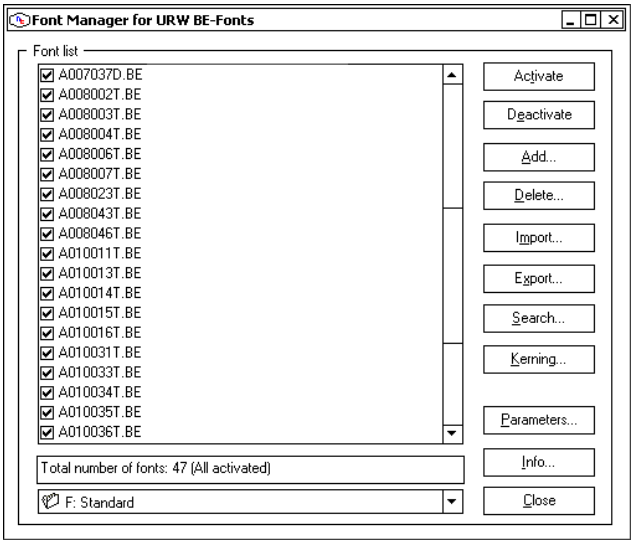


Fig. 151: The *Font Manager* Dialog Box for URW BE Fonts

All the fonts located in the “Standard“ data bank are displayed in the box headed ***Font List.*** There is a tick in front of all active fonts, whereas deactivated fonts have no tick.

A double click on a font with the right mouse button opens a preview window displaying the font.

The total number of fonts and the number of active and deactivated fonts is displayed underneath the list of fonts.

Activate Fonts

You can activate a font by clicking on the box in front of the font with the left mouse button.

You can activate several fonts one after another by holding down the CTRL key while selecting the fonts.

You can activate several fonts simultaneously by holding down the SHIFT key while selecting the fonts.

Deactivate Fonts

You can deactivate a font by clicking on the box in front of the font with the left mouse button.

You can deactivate several fonts one after another by holding down the CTRL key while selecting the fonts.

You can deactivate several fonts simultaneously by holding down the SHIFT key while selecting the fonts.

Note: *A deactivated font is not listed in the current stock of fonts. It is not possible to deactivate fonts which are being used in the job on hand. Deactivated fonts which are, for example, required after a job has been loaded will be activated automatically.*

Add Fonts

When fonts are added you must specify the Bezier file (*.be), which can be selected in the file selection dialog. It is possible to select several items in this dialog box. You can view the font before installation if you turn on the ***Display Sample Font*** box. Clicking on the ***Search*** button opens another dialog window. All BE font files will be searched, starting with the current directory (including the related subdirectories), and displayed in the list with their font names. If you click on OK, all the fonts marked with a cross will be installed.

Another way of adding fonts is to use DRAG & DROP.

Example: Open the explorer. Go to your font directory and select one or more BE files. Hold down the left mouse button, drag the selected fonts to the installation dialog box and drop them there.

The installed fonts will then be added to the current list of fonts. They are selected and immediately marked as active. Active fonts are immediately available for use in CoSign.

Delete Fonts

When you click on this button, the following dialog box opens:

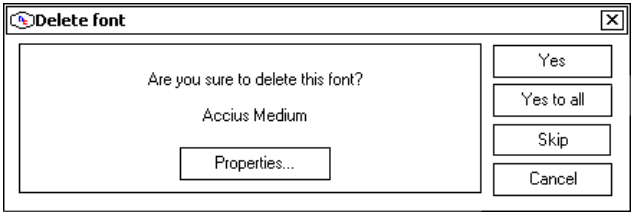


Fig. 152: The *Delete Fonts* Dialog Box

On the right side of the dialog box you can see the various buttons available to you.
Clicking on the ***Yes*** button deletes the selected font physically from the current stock of fonts.
Clicking on the ***Yes To All*** button deletes all selected fonts physically from the current stock of fonts.
If you click on the ***Skip*** button, the font currently displayed will not be deleted but the following one will be displayed.

Import Fonts

Clicking on the ***Import*** button opens a file selection dialog box where you must enter the name of the file to be imported. After you have clicked on the ***Open*** button, this import file will be read and the fonts contained displayed in the list of fonts.
You can now specify the fonts to be imported by selecting them in the check box on the left. Click on the ***Start*** button to begin the actual importing procedure.
All selected fonts will be read into the current stock of fonts.

Note: *Already existing fonts will be overwritten during this procedure.*

Export Fonts

Clicking on this button opens another dialog box listing all the fonts in the active stock.

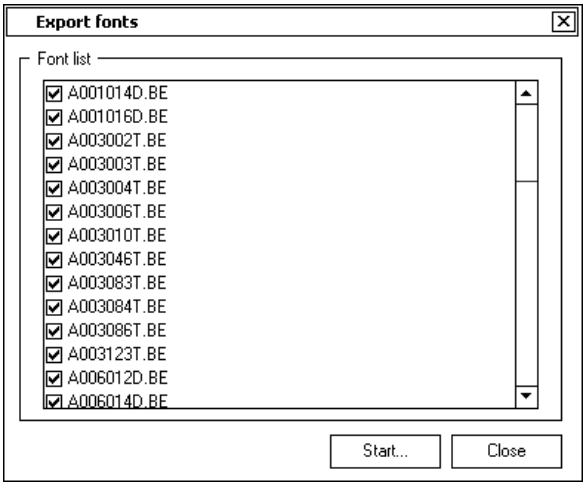


Fig. 153: The *Export Fonts* Dialog Box

Here you can specify the fonts to be imported by selecting them in the check box on the left. Clicking on the ***Start*** button opens a file selection dialog box where you must enter the name of the file to be exported. The program uses the default file name ECFontBE.Ecf.
Clicking on the ***Save*** button starts the exporting procedure.

Note: *It is not possible to export over several discs. In general approx. 8-10 font styles can be stored on a 1.44 MB diskette, depending on the font size.*

Search

This command permits you to search font data banks for specific fonts.

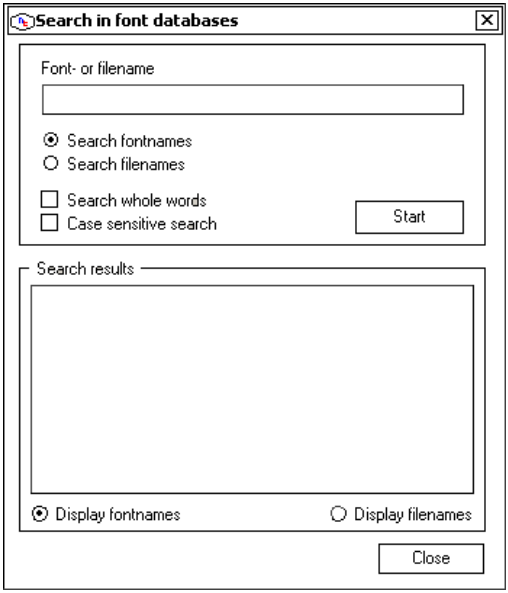


Fig. 154: The *Search* Dialog Box

Enter the name of the font you wish to locate in the line entitled ***Font Name.***

Underneath this line you can select the font style you wish to locate.

You can use the ***Search for Complete Words*** option to verify that the font name exactly matches the name of the font to be located. If this option is not selected, fonts whose names contain only part of the specified search name will also be located.

The ***Upper/Lower Case*** option can be used to check if the font name is written in capital or small letters. If this option is not selected, “Aachen Bold“, for example, will be located as well as “AaCHen BOLD“.

Click on the ***Start*** button to begin the search procedure. All linked font data banks will be searched and the fonts found will be listed as well as their position in the data banks.
By double-clicking with the left mouse button you can go to the linked font data bank, while the dialog box closes and the font is selected in the current list of fonts.

Kerning...

What is Kerning?

When individual characters are placed next to each other to form a text string, it is not unusual to find major discrepancies in the spacing between them. Take, for instance, the word “Text“. You can easily detect a wider gap between the “T“ and the “e“ than between the remaining letters. This is due to the fact that the horizontal line on the “T“ projects beyond the letter’s side bearings (which is the definition of a **kern**). This protusion serves a reference point for the spacing to the next character, “e“, thus creating a wider gap than the remaining part of the letter would warrant.
Compare that to the word “letter“. Here the spacing between all letters is equal, which makes the appearance of the entire word much more aesthetic.
To avoid this spacing problem, many character combinations have to be modified, i.e. the spacing between them customized. This correction, which is generally performed during the design and development of new fonts, is commonly known as **kerning.**

What Determines Kerning?

During the development of new fonts, kerning is defined depending on the type of font. Typewriter fonts, for instance, are given a uniform character width and therefore require no kerning at all. This is not the case with proportional fonts which, without kerning, are often difficult to read.

For these types of fonts, the original developer defines kerning factors that will produce the best results. These factors are compiled in a table referred to as the "PFM (**P**rinter **F**ont **M**etrics) files" in the Adobe Type Manager and are implemented whenever such a font is used.

Why Use a Kerning Editor?

Since fonts are generally designed for printing purposes, it is possible that for many sign applications, where large character sizes, all caps, and short text strings are common, the kerning may be off. With a kerning editor, all these spacing problems can easily be fixed.

The *Kerning* Dialog Box

Clicking on the ***Kerning*** button opens the dialog box for editing the kerning data.

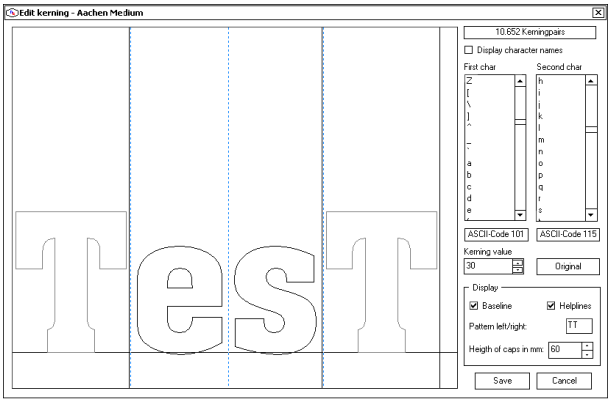


Fig. 155: The *Kerning* Dialog Box

The font currently active is displayed in the dialog box headline. You can select another font by exiting the kerning dialog box and clicking on another font in the font manager.

You can change the kerning values by using the arrow key or by entering them directly in the ***Kerning Value*** box. If you want to return to the original value, click on the ***Original Value*** box. The changes can be seen immediately in the kerning window, with positive spacing marked with blue and negative with red guidelines.

The two letters to the left and right of the kerning pair are entered in the box ***Enter Letter Left/Right.*** It is possible to turn the baseline as well as the guidelines on and off.
You can modify the display in the preview window in the ***Cap Height*** box.
You can confirm the modifications you have made in this dialog box by clicking on the ***Save*** button.

Settings

This dialog box is used to specify the basic attributes of the CoSign font manager:

General

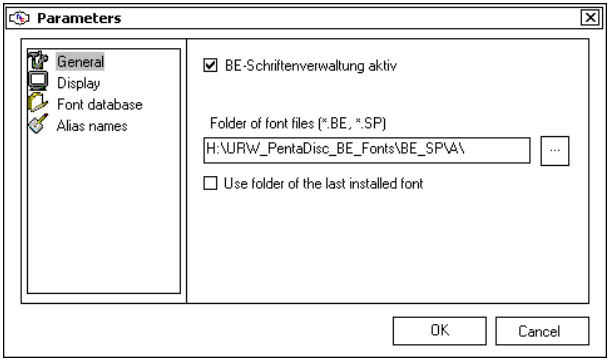


Fig. 156: The *Settings* Dialog Box/*General* Card

You can use the ***BE Font Manager Active*** box to activate or deactivate the use of URW BE data bank fonts.

The path of the directory that is used when fonts are added is displayed in the line entitled ***Directory of URW Font Files...*** This directory can be specified to your wish in the ***Directory Selection*** dialog box if you click on the ***...*** button.

If the ***Directory of the Respective ...*** is active, the most recently used directory will be used for installing the fonts.

Display

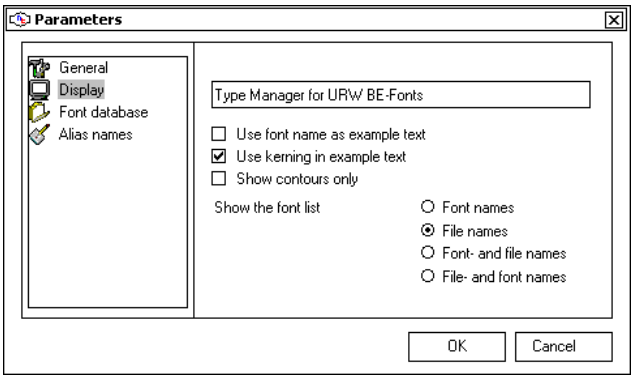


Fig. 157: The *Settings* Dialog Box/*Display* Card

Any text you like can be typed in the line entitled Sample Text and this text will appear the window dis

If the ***Use Font Name as Sample Text*** checkbox is active, the Windows name of the font will be displayed.

If the ***Sample Text with Kerning*** checkbox is active, the kerning values of the font will be used in the sample text.

If the ***Only Display Outlines*** checkbox is active, the font will be displayes in the wireframe mode.

Font Bar Display:

Possible settings:
- font name (Windows name)
- file name (BE)
- font and file names
- file and fonts names

Font Data Bank

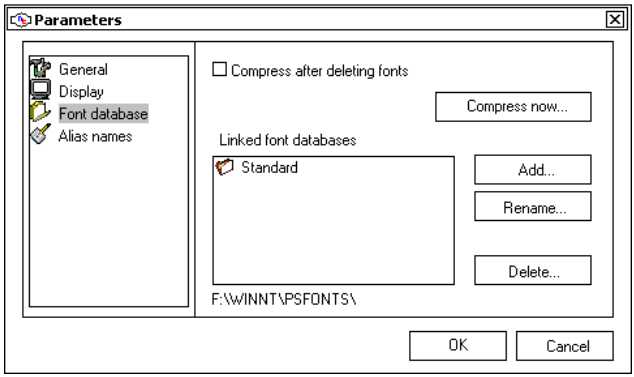


Fig. 158: The *Settings* Dialog Box/*Font Data Bank* Card

If the ***Compress After Deleting ...*** checkbox is active, the font data bank will be compressed each time a font is deleted.
Thus, redundant data entries will be physically deleted from the font data bank, i.e. the font data bank files will be smaller and take up less drive storage space.
After deletion, the data bank only contains the real entries.

Note: *If this checkbox is not active, only the reference to the deleted fonts will be removed but the fonts will not be deleted physically.*

If you click on the ***Compress Now*** button, the compressing procedure will be performed immediately, regardless of whether fonts have been deleted or not.
This procedure may take a while depending on the number of fonts installed or already deleted.

The currently installed font data banks are listed in the box entitled ***Linked Font Data Banks.*** The directory path of the data bank on the data carrier is displayed underneath this box.

The current font data bank is marked with a red symbol and the other font data banks with a yellow symbol to the left of the items. You can change the current font data bank by selecting the desired item if the ***Settings*** dialog box has been confirmed by clicking on OK.

Clicking on the ***Add*** button opens the ***Directory Selection*** dialog box, where you first of all have to specify the physical positon of the font data bank. If you click on the OK button, any name you wish for the font data bank (name of the link) can be entered in the next dialog box. Then the new name will appear in the list.

If no font data bank already exists in the directory selected, one will be created after you have been asked if this should be done, once the ***Settings*** dialog has been ended by clicking on OK.
In the ***Directory Selection*** dialog box you can use the right mouse button to recall a local menu where new directories can be created or entire directories can also be deleted.

Activating the ***Rename*** button allows you to rename the selected link.
The new name of the link must be typed in the dialog appearing and confirmed by clicking on OK.

Clicking on the ***Delete*** button allows you to delete the selected link. Here a dialog box also appears where you have to confirm the operation. There is also the possibility to delete the font data bank physically from the data carrier if the ***Delete Font Data Bank Physically from Data Carrier*** checkbox is selected. Otherwise only the name of the link will be deleted and the font data will remain on the data carrier.

Alias Names

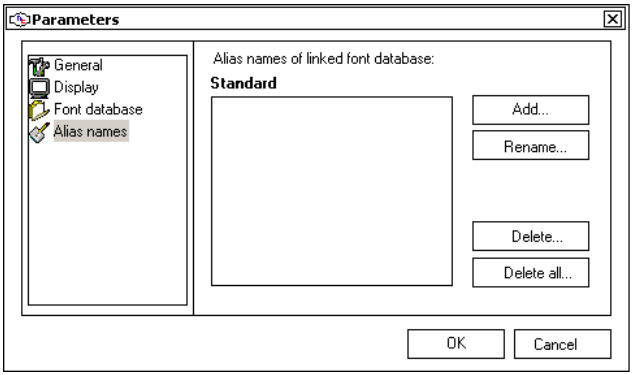


Fig. 159: The *Settings* Dialog Box/*Alias Names* Card

In this dialog box you can specify so-called alias names for the current font data bank.

In the ***List of Alias Names*** box a list will appear showing the current alias names in the present font data bank. The name of the font data bank is displayed above the list box. The name of the font currently active is displayed underneath the list box.

New alias names can be assigned by using the ***Add*** button. Clicking on this button opens a dialog box listing all the fonts in the currently active data bank. Select the font which is to be assigned an alias name.
When you confirm this dialog box with OK, a further dialog box will open where you can specify the alias name.

Note: *An alias name must be unambiguous; however, it is possible to assign one font name several different alias names.*

Clicking on the ***Rename*** button permits you to rename the selected alias name.

You can delete selected alias names using the ***Delete*** button.

The ***Delete All*** button can be used to delete all alias names.

The Font List Context Menu

If you click on the right mouse button when the mouse cursor is located in the area of the font bar, the following context menu opens:

Fig. 160: The *Context Menu* of the Font Bar

Display Sample

If you click on this menu item, a sample of the selected font will be displayed in a separate window. The same will happen if you double-click on a font with the right mouse button.

Rename
If you click on this menu item, a dialog box will open giving you the possibility to assign a font a new ***Font Name*** as well as a new ***Font File Name***.

Attributes
Clicking on this menu item opens a dialog box displaying information about the currently active font. This includes, among other things, the original installation path or the file name of the installed font, its postscript name, the number of characters, the date of creation and the date of modification, ...

Note: *The other menu items are the same as in the font manager dialog box and no further details are given here.*

Changing Font Data Banks

In the lower part of the font manager there is a box listing all the data bank links. Here you can change the current font stock by selecting the required item.

Changing the font data bank means that CoSign applications (e.g. the font list in the text editor) will work with the new stock of fonts from now on. Jobs containing fonts which were not created with this stock will still be performed correctly, even if any missing fonts are located in another font data bank.
The same applies to alias names.

Technical Information

File Names in the Font Data Bank

A font data bank always consists of the following 11 files, which must be located in the same directory of the data carrier:

ECFontBE.Dbf	ECFontBE.Dbt	ECFontBE.Mdx
ECCharBE.Dbf	ECCharBE.Dbt	ECCharBE.Mdx
ECKernBE.Dbf	ECKernBE.Dbt	ECKernBE.Mdx
ECSubsBE.Dbf		ECSubsBE.Mdx

Identifying URW BE Fonts

URW BE fonts in CoSign modules (e.g. in the font list in the text editor) can be identified as follows:

Blue-red "be" symbol : BE font from font data bank

Gray "be"-Symbol : BE alias name of a data bank font

Installation of Adobe Fonts

Note: *Two files are always required to install an Adobe font:*

1. the font postscript file (*.pfb)
2. the font metric file (*.pfm or *.afm)

Starting the Font Manager for Adobe Fonts

The font manager can be started in two ways:

1. Via the menu item ***Font Management/Font Manager for Adobe Fonts*** in the ***Settings*** menu.

3. Via the symbol of the CoSign font manager, which is located in the Windows task bar. Clicking once on this symbol with dthe right mouse button activates the font manager menu. In this menu simply select ***Font Manager for Adobe Fonts*** and the following dialog box will open:

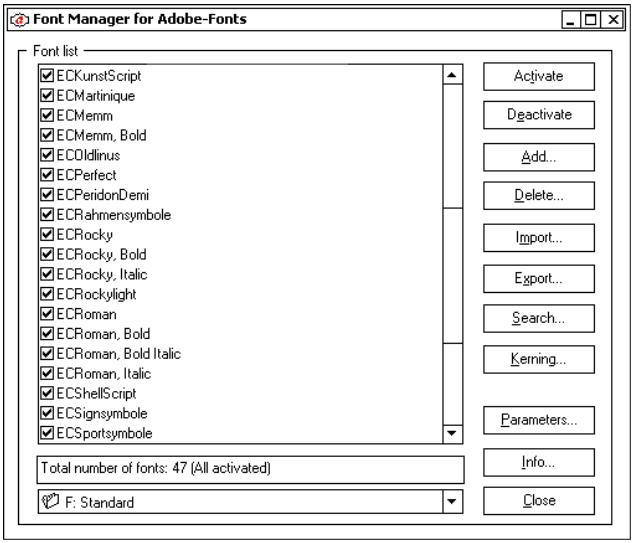


Fig. 161: The *Font Manager* Dialog Box for Adobe Fonts

All the fonts to be found in the “Standard“ data bank are displayed in the box headed ***Font List.*** There is a tick in front of all the active fonts, whereas the inactive fonts have no tick.

A double-click with the right mouse button on a font opens a preview window displaying the font.
The total number of fonts and the number of active and inactive fonts is displayed underneath the list of fonts.

Activate Fonts

You can activate a font by clicking with the left mouse button on the box in front of the font.

You can activate several fonts one after another by holding down the CTRL key while you select the fonts.

You can activate several fonts simultaneously by holding down the SHIFT key while you select the fonts.

Deactivate Fonts

You can deactivate a font by clicking with the left mouse button on the box in front of the font.

You can deactivate several fonts one after another by holding down the CTRL key while you select the fonts.

You can deactivate several fonts simultaneously by holding down the SHIFT key while you select the fonts.

Note: *A deactivated font is no longer listed in the current stock of fonts. It is not possible to deactivate fonts being used in the job on hand. Deactivated fonts required, for example, for loading a job will be activated automatically.*

Add Fonts

When fonts are added, you must specify the font postscript file , which can be selected in a file selection dialog box. It is also possible to select several items in this dialog box.
You can view the font before installation if you turn on the ***Display Sample Font*** box. Clicking on the Search button opens another dialog window. All PFB font files will be searched, starting with the current directory (including the related subdirectories), and displayed in the list with their font names. If you click on OK, all the fonts marked with a cross will be installed.

Another way of adding fonts is to use DRAG & DROP.
Example:

Open the explorer. Go to your font directory and select one or more PFB files. Hold down the left mouse button, drag the selected fonts to the installation dialog box and drop them there. The installed fonts will then be added to the current list of fonts. They are selected and immediately marked as active. Active fonts are immediately available for use in CoSign.

Delete Fonts

When you click on this button, the following dialog box opens:

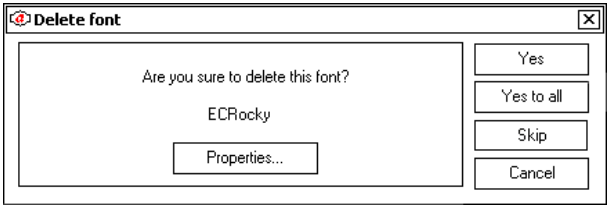


Fig. 162: The *Delete Fonts* Dialog Box

On the right side of the dialog box you can see the various buttons available to you.
Clicking on the ***Yes*** button deletes the selected font physically from the current stock of fonts.
Clicking on the ***Yes To All*** button deletes all selected fonts physically from the current stock of fonts.
If you click on the ***Skip*** button, the font currently displayed will not be deleted but the following one will be displayed.

Import Fonts

Clicking on the ***Import*** button opens a file selection dialog box where you must enter the name of the file to be imported. After you have clicked on the ***Open*** button, this import file will be read and the fonts contained displayed in the list of fonts.
You can now specify the fonts to be imported by selecting them in the check box on the left. Click on the ***Start*** button to begin the actual importing procedure.
All selected fonts will be read into the current stock of fonts.

Note: *Already existing fonts will be overwritten during this procedure.*

Export Fonts

Clicking on this button opens another dialog box listing all the fonts in the active stock.

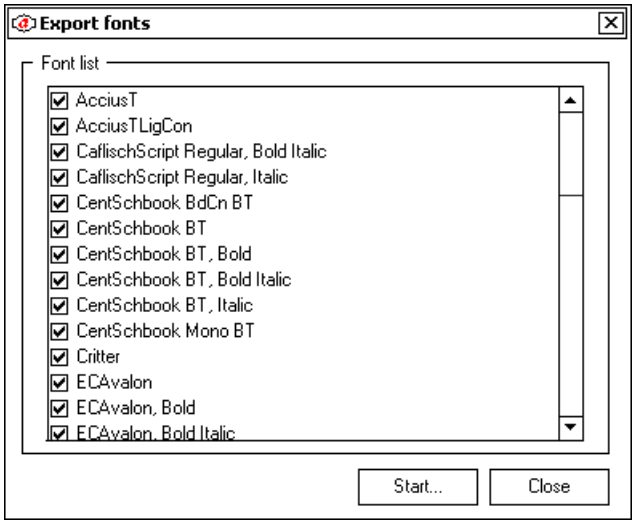


Fig. 163: The *Export Fonts* Dialog Box

Here you can specify the fonts to be imported by selecting them in the check box on the left. Clicking on the ***Start*** button opens a file selection dialog box where you must enter the name of the file to be exported. The program uses the default file name ECFontAT.Ecf.
Clicking on the ***Save*** button starts the exporting procedure.

Note: *It is not possible to export over several discs. In general approx. 8-10 font styles can be stored on a 1.44 MB diskette, depending on the font size.*

Search

This command permits you to search font data banks for specific fonts.

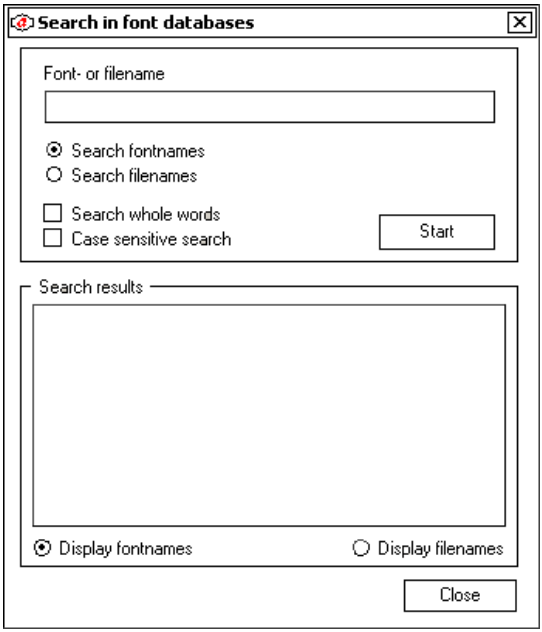


Fig. 164: The *Search* Dialog Box

Enter the name of the font you wish to locate in the line entitled ***Font Name.***

Underneath this line you can select the font style you wish to locate.

You can use the ***Search for Complete Words*** option to verify that the font name exactly matches the name of the font to be located. If this option is not selected, fonts whose names contain only part of the specified search name will also be located.

The ***Upper/Lower Case*** option can be used to check if the font name is written in capital or small letters. If this option is not selected, “Helvetica“, for example, will be located as well as “HeLVetiCA“.

Click on the ***Start*** button to begin the search procedure. All linked font data banks will be searched and the fonts found will be listed as well as their position in the data banks.
By double-clicking with the left mouse button you can go to the linked font data bank, while the dialog box closes and the font is selected in the current list of fonts.

Kerning...

What is Kerning?

When individual characters are placed next to each other to form a text string, it is not unusual to find major discrepancies in the spacing between them. Take, for instance, the word “Text“. You can easily detect a wider gap between the “T“ and the “e“ than between the remaining letters. This is due to the fact that the horizontal line on the “T“ projects beyond the letter’s side bearings (which is the definition of a **kern**). This protusion serves a reference point for the spacing to the next character, “e“, thus creating a wider gap than the remaining part of the letter would warrant.
Compare that to the word “letter“. Here the spacing between all letters is equal, which makes the appearance of the entire word much more aesthetic.
To avoid this spacing problem, many character combinations have to be modified, i.e. the spacing between them customized. This correction, which is generally performed during the design and development of new fonts, is commonly known as **kerning.**

What Determines Kerning?

During the development of new fonts, kerning is defined depending on the type of font. Typewriter fonts, for instance, are given a uniform character width and therefore require no kerning at all. This is not the case with proportional fonts which, without kerning, are often difficult to read. For these types of fonts, the original developer defines kerning factors that will produce the best results. These factors are compiled in a table referred to as the "PFM (**P**rinter **F**ont **M**etrics) files*"* in the Adobe Type Manager and are implemented whenever such a font is used.

Why Use a Kerning Editor?

Since fonts are generally designed for printing purposes, it is possible that for many sign applications, where large character sizes, all caps, and short text strings are common, the kerning

may be off. With a kerning editor, all these spacing problems can easily be fixed.

The *Kerning* Dialog Box

Clicking on the ***Kerning*** button opens the dialog box for editing the kerning data.

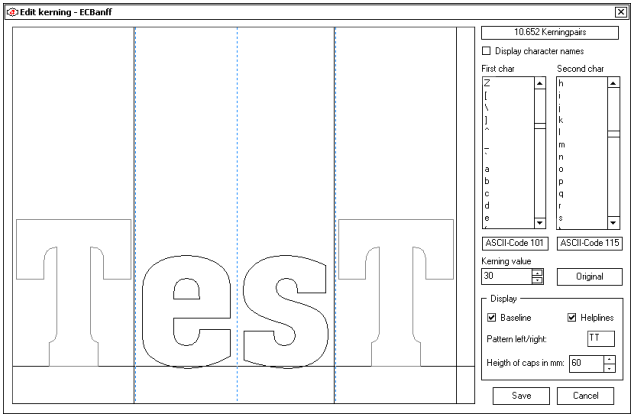


Fig. 165: The *Kerning* Dialog Box

The font currently active is displayed in the dialog box headline. You can select another font by exiting the kerning dialog box and clicking on another font in the font manager.

You can change the kerning values by using the arrow key or by entering them directly in the ***Kerning Value*** box. If you want to return to the original value, click on the ***Original Value*** box. The changes can be seen immediately in the kerning window, with positive spacing marked with blue and negative with red guidelines.

The two letters to the left and right of the kerning pair are entered in the box ***Enter Letter Left/Right.*** It is possible to turn the baseline as well as the guidelines on and off.

You can modify the display in the preview window in the ***Cap Height*** box.

You can confirm the modifications you have made in this dialog box by clicking on the ***Save*** button.

Settings

This dialog box is used to specify the basic attributes of the CoSign font manager:

General

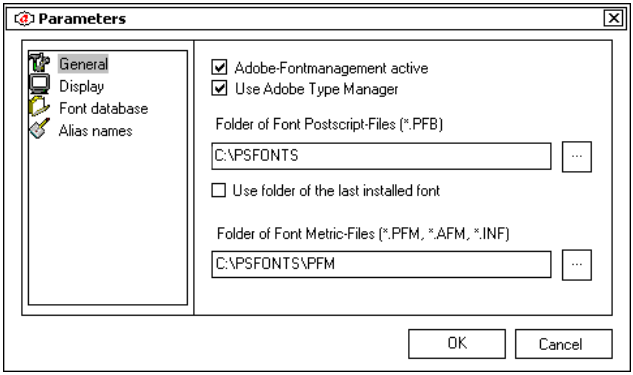


Fig. 166: The *Settings* Dialog Box/*General* Card

You can use the ***Adobe Font Manager Active*** box to activate or deactivate the use of Adobe data bank fonts.

If the Also Use Adobe Type Manager checkbox is active and the Adobe Type Manager is installed, the fonts installed there will also be used by CoSign.

***Note**: When both checkboxes are turned off, no Adobe type 1 fonts are available.*

The path of the directory used when fonts are added is displayed in the line entitled ***Directory of Font Postscript Files...*** This directory can be specified to your wish in the ***Directory Selection*** dialog box if you click on the ***...*** button.

If the ***Directory of the Respective ...*** is active, the most recently used directory will be used for installing the fonts.

The line entitled ***Directory of Font Metric Files*** displays the path of the directory from the font metric files are imported, if these files are not to be found in the same directory as the PFB files.

In the ***Directory Selection*** dialog box you can select any directory you wish with the ***...*** button.

Display

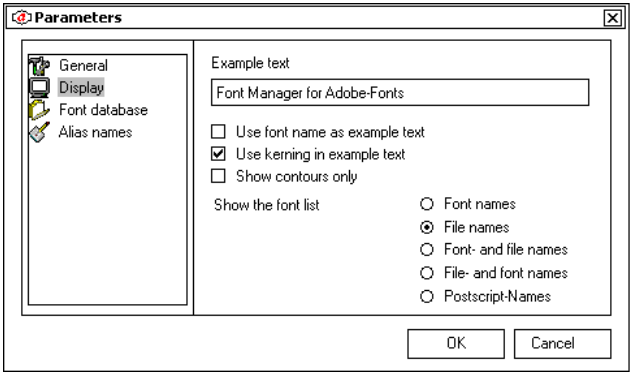


Fig. 167: The *Settings* Dialog Box/*Display* Card

Any text you like can be typed in the line entitled Sample Text and this text will appear the window dis

If the ***Use Font Name as Sample Text*** checkbox is active, the Windows name of the font will be displayed.

If the ***Sample Text with Kerning*** checkbox is active, the kerning values of the font will be used in the sample text.

If the ***Only Display Outlines*** checkbox is active, the font will be displayes in the wireframe mode.

Font Bar Display:

Possible settings:
- font name (Windows name)
- file name (PDB)
- font and file names
- file and fonts names

Font Data Bank

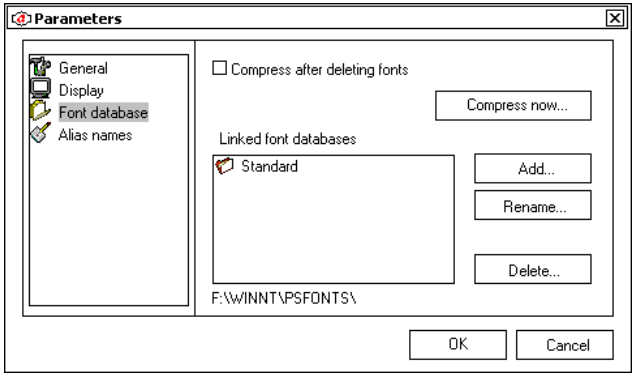


Fig. 168: The *Settings* Dialog Box/*Font Data Bank* Card

If the ***Compress after Deleting ...*** checkbox is active, the font data bank will be compressed each time a font is deleted.
Thus, redundant data entries will be physically deleted from the font data bank, i.e. the font data bank files will be smaller and take up less drive storage space.
After deletion, the data bank only contains the real entries.

Note: *If this checkbox is not active, only the reference to the deleted fonts will be removed but the fonts will not be deleted physically.*

If you click on the ***Compress Now*** button, the compressing procedure will be performed immediately, regardless of whether fonts have been deleted or not.
This procedure may take a while depending on the number of fonts installed or already deleted.

The currently installed font data banks are listed in the box entitled ***Linked Font Data Banks.*** The directory path of the data bank on the data carrier is displayed underneath this box.

The current font data bank is marked with a red symbol and the other font data banks with a yellow symbol to the left of the item. You can change the current font data bank by selecting the desired item if the ***Settings*** dialog box has been confirmed by clicking on OK.

Clicking on the ***Add*** button opens the ***Directory Selection*** dialog box, where you first of all have to specify the physical positon of the font data bank.
If you click on the OK button, any name you wish for the font data bank (name of the link) can be entered in the next dialog box. Then the new name will appear in the list.

If no font data bank already exists in the directory selected, one will be created following an enquiry, after the ***Settings*** dialog has been ended by clicking on OK.
In the ***Directory Selection*** dialog box you can use the right mouse button to recall a local menu where new directories can be created or entire directories can also be deleted.

Activating the ***Rename*** button allows you to rename the selected link.
The new name of the link must be typed in the following dialog and confirmed by clicking on OK.

Clicking on the ***Delete*** button allows you to delete the selected link. Here a dialog box also appears where you have to confirm the operation. There is also the possibility to delete the font data bank physically from the data carrier if the ***Delete Font Data Bank Physically from Data Carrier*** checkbox is selected. Otherwise only the name of the link will be deleted and the font data will remain on the data carrier.

Alias Names

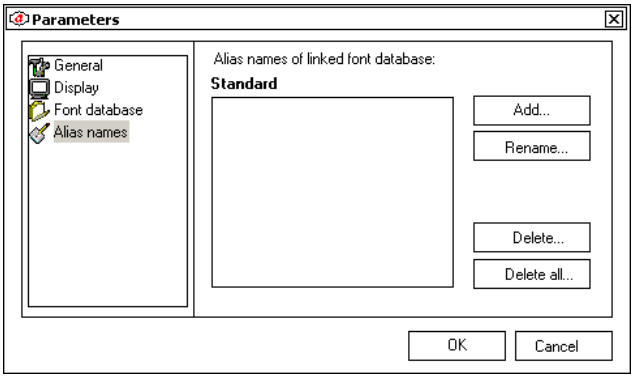


Fig. 169: The *Settings* Dialog Box/*Alias Names* Card

In this dialog box you can specify so-called alias names for the current font data bank.

In the ***List of Alias Names*** box a list will appear showing the current alias names in the present font data bank.

The name of the font data bank is displayed above the list box. The name of the font currently active is displayed underneath the list box.

New alias names can be assigned by using the **Add** button. Clicking on this button opens a dialog box listing all the fonts of the currently active data bank. Select the font which is to be assigned an alias name. When you confirm the entries in this dialog box by clicking on OK, a further dialog box will open where you can specify the alias name.

Note: *An alias name must be unambiguous; however, it is possible to assign one font name several different alias names.*

Clicking on the ***Rename*** button permits you to rename the selected alias name.

You can delete selected alias names using the ***Delete*** button.

The ***Delete All*** button can be used to delete all alias names.

The Font List Context Menu

If you click on the right mouse button when the mouse cursor is located in the area of the font bar, the following context menu opens:

Fig. 170: The Font Bar *Context Menu*

Display Sample
If you click on this menu item, a sample of the selected font will be displayed in a separate window. The same will happen if you double-click on a font with the right mouse button.

Rename
If you click on this menu item, a dialog box will open giving you the possibility to assign a font a new ***Font Name*** as well as a new ***Font File Name***.

Attributes
Clicking on this menu item opens a dialog box displaying information about the currently active font. This includes, among other things, the original installation path or the file name of the installed font, its postscript name, the number of characters, the date of creation and the date of modification, ...

Note: *The other menu items are the same as in the font manager dialog box and therefore no further details are given here.*

Changing Font Data Banks

In the lower part of the font manager there is a box listing all the data bank links. Here you can change the current stock of fonts by selecting the required item.

Changing the font data bank means that CoSign applications (e.g. the font list in the text editor) will work with the new stock of fonts from this moment. Jobs containing fonts which were not created with this stock will still be performed correctly, even if any missing fonts are located in another fonts data bank.
The same applies for alias names.

Technical Information

File Names in the Font Data Bank

A font data bank always consists of the following 11 files, which must be located in the same directory of the data carrier:

ECFontAT.Dbf	ECFontAT.Dbt	ECFontAT.Mdx
ECCharAT.Dbf	ECCharAT.Dbt	ECCharAT.Mdx
ECKernAT.Dbf	ECKernAT.Dbt	ECKernAT.Mdx
ECSubsAT.Dbf		ECSubsAT.Mdx

Distinguishing Marks for Adobe Fonts

Adobe fonts in CoSign modules (e.g. in the list of fonts in the text editor) can be identified as follows:

Blue "a" symbol : Adobe font from font data bank

Gray "a" symbol : Alias name of a data bank font
Red "a" symbol : Adobe font managed by Adobe Type Manager (if installed)

Double Fonts When The Adobe Type Manager Is Also Used

The CoSign font management does not permit double font styles. If a font style managed by the Adobe Type Manager has the same name as a font style in the active font data bank, the data bank font will be used. This only applies to identical font styles.

The following is, however, possible:

Helvetica, bold – managed by the Adobe Type Manager

Helvetica, italic – managed by the Adobe Type Manager as data bank font

Note: *In such cases "Helvetica" would appear twice in the list of fonts.*

9. EuroCUT Professional Tips & Tricks

It is often only small things that make it difficult to work with new software. As with any new equipment, users often have questions and encounter problems that are easily solved. To save you a trip to the telephone, we have compiled a number of frequently asked questions and problems to which there are very simple solutions. EuroCUT using Windows NT 4.0

1. **When I export my job in bitmap format (JPEG, GIF, TIFF, etc.) I only get a bitmap with lines.**

This problem only arises when Windows NT is being used. Unfortunately it cannot be eliminated at present, as the program modules for exporting bitmaps with the 32-bit environment of Windows NT don't work.

2. **No Postscript fonts are listed in the text editor although the Adobe Type Manager for Windows NT is being used.**

As EuroCUT is still a 16-bit program at present, no Postscript fonts are available to EuroCUT when Windows NT is used. You can automatically change your Adobe Type 1 fonts into TrueType format using Windows by activating fonts with the Windows NT 4.0 font manager.

Cutting with EuroCUT

3. **The plotter cuts the first characters cleanly and then begins to draw indefinable curves.**

This is a typical buffer overflow problem when the plotter is driven serially. This occurs when the flow control is not properly set up for serial transmission. For serial data transmission most plotters are driven with the following parameters:

Bits per second:9600, Data bits:8, Stop bits:1, Parity:None, Flow control: Hardware

You can change these values under Windows 3.x over program manager / main group / control panel / ports / COMx / settings and under Windows 95 over start / settings / control panel /

system / device manager / ports (COM and LPT) / COM port (COMx) / port settings.

If your plotter is set to other communication parameters, you can generally find the values in the display under the *Interface* or *Communication* menu and enter them in the Windows control panel.

4. When I try to cut objects, the error message "Unable to create cutter.dat" appears.

The eurocut.ini file contains either no value or the wrong value for cutter.dat in the [Job] section. Open the eurocut.ini file with an editor such as notepad or wordpad and change the entry for cutter.dat. For instance, **cutterdat=c:\windows\eurocut4\cutter** would be an appropriate entry for EuroCUT4, which has been installed in directory c:\windows\eurocut4.

5. I own a Roland PNC 950, 960 or CM12 cutting plotter. If the object height exceeds 70cm(about 24 ins) Corun proposes a segmentation, although the cutting objects don't exceed the foil width.

These types of ROLAND plotters usually take the lower left corner as the origin point. As most other plotters have specified the origin point in the lower right corner, Corun/EuroCUT drive the plotters in such a way that the object's height is cut width-wise from the vinyl.

It is, however, possible to set up ROLAND plotters so that they take the bottom right corner as the origin point. To do this, first press the ROTATE key in the plotter's operating field and then the SETUP key. With the CM series set the dip switch to ON.

6. Although the 'read back' button is activated in Corun, this function always shows '0' in conjunction with a Mimaki plotter of the CG series. How can the plotter be set up so that the correct foil width is given?

Mimaki CG series plotters will not react to the ***Read Back*** command unless they are run in the ***Host*** mode. For this proceed as follows: switch on the plotter, press the <-key in the operating field and once the plotter has measured out the roll of vinyl, keep

pressing this key until “Priority“ appears in the display window. Press ENTER and then the ^- key. The word ***Host*** will then appear in the display window. Confirm this selection by pressing ENTER.

7. More than a meter of vinyl is fed forward before cutting starts.

The plotter's point of origin is still set to ***Center***. However, it must be at ***Lower Right***. To change the origin point, keep pressing the function button on the plotter until ***Origin*** appears in the display window. Press ENTER and then keep pressing the ^- key until ***Lower Right*** appears in the display window. Confirm this selection by pressing ENTER.

8. What must I do to have the software control the speed and pressure values?

The plotter must be set to *Host* in the menu item ***Priority*** (see ***Read Back***).

9. The output size on my Mimaki CG51 is more than twice the size of the design.

Mimaki CG51, 61, 101 and 121 plotters come with a resolution of 0.025 mm(.00098 in), although they are able to work with a resolution of 0.01mm (.00039 in) and also do so internally. The EuroCUT and Corun drivers are set to 0.01mm (.00039 in) because the plotters can thus be driven faster and more accurately. To change your plotter's resolution to 0.01mm (.00039 in), switch on the plotter, press the <- key in the operating field and once the plotter has measured out the roll of vinyl, keep pressing the function key until ***Interface*** appears in the display window. Keep pressing ENTER until you get to the menu item ***Step Size*** and then press the ^- key. The display window then shows 0.01. Confirm this choice by pressing ENTER and END.

10. What value must I enter in the *Print* field so a knife pressure of, for example, 100g is used in cutting?

The following table shows the pressure values:

Pressure	Gram	Pressure	Gram	Pressure	Gram	Pressure	Gram
1	20	11	70g	21	140	31	240
2	25	12	75	22	150	32	250
3	30	13	80	23	160	33	260
4	35	14	85	24	170	34	270
5	40	15	90	25	180	35	280
6	45	16	95	26	190	36	290
7	50	**17**	**100**	27	200	37	300
8	55	18	110	28	210	-	-
9	60	19	120	29	220	-	-
10	65	20	130	30	230	-	-

Fig. 183: Pressure Settings

To work with 100 g pressure, for example, you must enter 17 in the ***Print*** field.

Outline

11. Inlines/outlines are not as intended.

When working with inlines and outlines, please make sure you select an offset that is proportional to the size of the objects you are modifying. An offset that is either too large or too small will not produce the desired effect. If you are uncertain as to the actual size of the graphic, use the ***Measure*** function in the ***Design*** menu to determine its exact size.

12. Round corners in the *Outline* function

When using the EuroCUT Outline function, you have the option to round off corners, With a tolerance of 1.6, the rounded corners can often be seen only with the zoom-in function. This rounding effect can be enhanced by selecting a tolerance of 0.5 or less.

13. What is a self-intersection and how can I get rid of it?

You often get this message when an outline contour is to be generated round a text. As fonts are often converted from one font format such as Type 1 to another font format such as TrueType, during conversion two tangents on a node may be confused and so the tangents produce a kind of loop (see diagram).

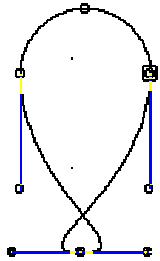


Fig. 184: Example of Self-intersection

You can find and correct this place relatively quickly if you change the text to curves and clean up the character around which it was not possible to generate an outline in the node mode. If you cannot see at a first glance which nodes are concerned, select the tangents of the single nodes and drag them in a different direction. Often it is already a help if you define a node symmetrically. You can undo the individual changes with the F5 key if the changed node is not the one you are looking for.

When you have found the nodes with self-intersections, delete them or change the shape of the curve with the help of the tangents so that the loop disappears. The easiest way is either to note the ends of the tangents and switch them over or to define the node symmetrically and place one of the two ends of the tangent on the opposite side of the node.

Text Editor

14. Selecting fonts in the text editor

First select the character or text which you want to assign special attributes to by moving the mouse over the area with the left button held down. Then click once with the mouse in the list of fonts.

You can now select any fonts you wish with the arrow keys one after another and view them in the display window. You can specify the desired font in the selected area by pressing ENTER.

15. Text blocks are no longer displayed as readable text but as crossed rectangles.

You have pressed the F8 key which is a shortcut for the ***Display Text*** command. This option is especially useful for editing a large number of text objects. When it is activated, text objects are shown as crossed rectangles. This lets you refresh the screen much more quickly. You can deactivate this mode by pressing the F8 key again.

EuroCUT and the Adobe Type Manager

EuroCUT frequently crashes while text is being typed.

16. Some of the fonts are not correctly displayed.

When you are using Windows for Workgroups 3.11, you must not turn off the TrueType fonts option as otherwise the Type1 fonts will not being correctly displayed (incorrect running width etc.)
Make sure that you only activate the TrueType fonts supplied with Windows as far as possible. Otherwise use Type 1 fonts as these can usually be better scaled. This is not generally applicable since there are also very well digitized TrueType fonts. But as TrueType fonts are mainly used for screen design and printing, where such high quality is not possible as in plotting, you should not use the TrueType fonts format. These fonts are available in both formats on most font CDs.

17. How large should the font cache be?

The size of the font cache should be determined according to the number of installed fonts and the size of the working storage. In our experience 1024KB must be reserved for the font cache with 16 MB of RAM and about 512 KB with 8 MB of RAM.

If you want to install several fonts temporarily for one Windows session, for example for printing out large font catalogues with EuroFONTER, you should greatly enlarge the font cache, for

instance to 10 MB, so that there is room for all fonts in the working storage.
Note: *Don't forget to reset the font cache to its original value.*

18. It often happens that fonts are not or incorrectly displayed or EuroCUT crashes while text is being typed.

For this reason the atmfonts.qlc file, which is normally to be found in the c:\psfonts directory, has to be deleted from time to time, especially when there are frequent crashes while text is being typed. To do this, you must exit Windows (if you are using Windows 95 start your computer in the *MS-DOS* mode), as otherwise the file will not be deleted. The Adobe Type Manager used this file to store the fonts temporarily, so that a new index of all the installed fonts does not have to be compiled when Windows is started. This file will be updated when you exit Windows. If you delete the file using Windows, it will not be recreated next time you restart Windows.

It can also be that the number of simultaneously activated (installed) fonts is too large. For instance a maximum of approx. 150 fonts should be installed with a font cache of 512KB. Make sure you do not use TrueType and Adobe Type 1 fonts of the same name, since this could lead to access conflicts.

The only solution is often to completely deinstall the ATM and reinstall it.

Up to now the Adobe Type Manager 3.02 has worked most reliably. It is currently supplied with EuroCUT Classic and Professional.

Printing with EuroCUT

19. It frequently happens that EuroCUT is closed with the message “Copy protection not found” during printing.

EuroCUT verifies the presence of the copy protection (dongle) at irregular intervals. When printing with the print spooler it may happen that the printing data are read back instead of the dongle data and thus the dongle cannot be properly detected. As EuroCUT does not verify the presence of the dongle during printing

and the above-mentioned problems only occur when you are printing with the print spooler, you must turn off the print spooler. To do this, proceed as follows: click on the Windows 95 start button select ***Settings/Printer.***

Click with the right mouse button on the icon of the printer which is plugged in behind the dongle, select ***Attributes*** and then the details tab. Click on spool settings and choose ***Send printing orders to printer***.

Note: *Generally there should be a free ISA slot in your computer into which you can insert another parallel interface card. If you plug the dongle into this second parallel interface, it is possible to use the print spooler.*

20. Problems with printing text info or graphics

You may occasionally encounter problems in printing text info or graphics. Generally the langer.dll. crashes owing to a faulty printer driver, e.g. the HP Laser Jet IIp. In this case either replace the printer driver with an updated version from your dealer or the manufacturer or try installing a printer which is compatible with your driver. You can install the printer over the Windows control panel.
(You can find further information on installing printer drivers in your printer and Windows manuals.)

Vectorizing

21. What resolution should be used for vectorizing to obtain a good result?

If the quality of the original is good, use your scanner's optical resolution such as 600 dpi. Make sure that you do not confuse this with the highest possible resolution, as most scanners are now able to work with a resolution twice as high (interpolated). This can produce better quality for photo scans but it is not useful for vectorizing.

You should enlarge very small originals, such as logos on business cards, with a photocopier before scanning.

If the quality of the original is poor, you should use a lower resolution. If, for instance, a printout from a 300dpi laser printer is taken as original, a resolution of 200 to 300dpi is sufficient.

CoRUN

22. The output quality of texts exported from CorelDRAW is very poor. Especially curves are often transmitted to EuroCUT with a jagged appearance.

This problem regularly occurs when cutting with CorelDRAW 3, 4 and 5, especially when cutting small characters. If you are using one of these Corel versions, the page size is limited to 70cm (about 27 in). Therefore you must design with factor 1:10 or other similar factors. You can reduce this problem by setting text elements as large as possible, because CorelDRAW converts text to curves only as well as is necessary for printing.

Note: The larger the original size of the text is, the better the conversion and thus the output quality is.

If this does not lead to the desired result, the only other alternative is to reset the text using EuroCUT.

23. After installing CoRUN for CorelDRAW 7 on Windows NT4 I cannot not enlarge the symbol bar using Windows NT4.

This problem only occurs when you are using CorelDRAW7 and Windows NT 4. However, it is said to have been eliminated in the current release, according to the CorelDRAW technical hotline.

There a two possibilities of avoiding this problem:

1. If there is another Windows 95 installation besides Windows NT4 on the same computer, you should reinstall CorelDRAW7 using Windows 95. Make sure that installation is executed into the same directory in which you have already installed CorelDRAW7 using Windows NT4. Then start CorelDRAW7 using Windows 95 and adjust the symbol bar. Exit CorelDRAW and restart your computer using Windows NT4.

2. If you have installed CorelDRAW7 on another computer on which Windows 95 is installed and have added the CoRUN icon to the symbol bar, you can copy the CDGBARS.CFG, CDRMENU.CFG and CDRROLS.CFG files onto a disk from the CorelDRAW 7 directory.

Then you can copy them into the CorelDRAW7 'draw' directory from there on the Windows NT4 computer.

24. If you try to export a text block from CorelDRAW6 to EuroCUT the message “Object has too many nodes” appears.

CorelDRAW only has the ability to convert a limited number of nodes (approximately 3000). The more curves and serifs the used typefaces have, the fewer the characters that can be converted. You can avoid this problem by using a larger number of small text blocks with fewer characters.

25. During installation I get the error message “Setup files have been modified or corrupted”.

As the installation routine for CoRUN 6/7/8 does not work with long path names the problem is likely to arise from CorelDRAW having been installed in a directory with a path name such as C:\Programs\CorelDraw 7.
First deinstall CorelDRAW 6, 7 or 8 over the control panel (software) and then reinstall CorelDRAW in a directory which does not contain any long path names, such as C:\COREL7. Now you can reinstall CoRUN 6/7/8.

26. The plotter is not responding!

a. Call up the EuroCUT plotting dialog box and make sure you have selected the proper plotter driver and port, e.g. Mimaki CG6 and COM2.

b. Check your communication parameters. Select the ***Control Panel*** option or the main menu in the Windows program manager and click on the ***Port*** icon. In the subsequent dialog box, select the port through which your computer is connected with the plotter and set parameters that match your plotter settings. Common plotter parameters are:

Baud rate:	9600
Data bits:	8
Parity:	none
Stop bits:	1
Flow control	Hardware

Advanced settings for COM1 are 03F8 and IRQ 4.

Advanced settings for COM2 are 02FB and IRQ 3.

c. Make sure you are using the data cable supplied by the plotter manufacturer. Failure to use the original cable can create major problems in the transfer of data between the software and the plotter and lead to garbled output.

d. Some computers come equipped with multiple-port cards which can also cause problems in the communication with output device even though all port tests and diagnostics appear to be fine. In this case, we strongly recommend installing a separate serial-interface card. This setup is much more effective and, in the long run, will save you a lot of time and headaches. Please contact your computer supplier for the purchase and installation of such a serial-interface card.

27. The plotter indicates a "Buffer overflow" or does not cut the entire job.

Most often, this is the result of an incorrect setting in your communication parameters. The ***Flow Control*** setting should be set to ***Hardware*** (see point b).
In some rare instances, it might have to be set to XON/XOFF.
If the solutions described in points 1 and 2 do not help, it may be that the plotter or the computer interface is malfunctioning.
To narrow down the source of the problem, create a test file to check
the communication to the plotter without actually going through the EuroCUT software. To create a test file, send a job created in EuroCUT to ***File*** rather than via the ***COM*** port to the plotter. To do this, change the port setting in the ***Cut*** menu to *File.* Click on the OK button and the program will ask you to enter a name for this file. Assign the name ***:\test.plt***.
Now you need to close Windows and continue working with MS-DOS commands. At the MS-DOS prompt, enter *cd*. Initialize the serial port in question by entering the following command line at the prompt: mode ***comx:9600,n,8,1,p*** + ENTER.

Note: *Be sure to replace the "x" in comx with the appropriate port number for your particular setup, i.e. COM1,COM2, etc.*

Now send the test file directly to the plotter by entering the following command*:* ***copyc \test.plt comx****:*

If the plotter outputs the file correctly, we have practically eliminated the possibility of there being a problem with the hardware.
Please contact your EuroCUT software supplier or the EUROSYSTEMS hotline to find out what additional steps need to be taken to resolve this problem. You can find the EUROSYSTEMS address in the attached licensing agreement.

28. Exporting from EuroCUT to CorelDRAW 3, 4, 5, 6, 7 & 8

Export the job as *.EPS into the proper directory. Import the file into CorelDRAW as an Illustrator 88, 3.0, *.ai,*.EPS file.

Note: *Please remember that files exported from EuroCUT are exported in wireframe form. You must first select the* ***Edit Wireframe*** *option in the* ***View*** *menu of Corel to be able to display the imported file on screen.*

29. Exporting from Adobe Illustrator 4.0 to EuroCUT

When exporting text files from Adobe Illustrator into a vector graphics program such as EuroCUT, you must first convert the text into outlines before saving and exporting it.

30. to-import in EuroCUT not performing properly

Make sure the import path in the EuroCUT basic settings matches the export path used for the file to be auto-imported into EuroCUT.

Note*: The export and import directories must be identical.*

The import file name in basic settings should not include a specific extension if the ***Auto-import*** function is to work with both *.EPS and *.JOB files.

31. Using a Logitech mouse with EuroCUT

The Logitech mouse driver software has been known to create occasional problems with the EuroCUT text editor. The mouse may lock up or the plotter may not cut once the file has been output. To eliminate such problems, we recommend using a 100% Microsoft-compatible mouse.

32. Automatic welding not performing satisfactorily

The success rate when using this option on text strings can be dramatically increased by reducing the spacing between the characters from 100% to 99.9% or even 99%. The reduction will cause points which, mathematically, are located on top of one another to be separated ever so slightly and recognized as two individual points. Of course, you could also use the kerning editor to modify the spacing between character pairs that tend to create problems in the welding process.

***33. share.exe* required in the autoexec.bat file (Win 3.X)**

The MS DOS command allows the simultaneous sharing of one file by two different programs. If this command is not entered in your autoexec.bat file, problems may arise when using the cutter.exe file for cutting. To avoid deadlocks resulting from two programs trying to simultaneously access the same file, it is best to have the software load this command automatically every time the computer is booted up. To do this, enter the command in your autoexec. bat file as follows: ***c:\dos\share.exe.***

34. Single-sheet stock on the Aristo 130 Signline plotter

When using single-sheet stock on an Aristo 130 Signline plotter, set the ***Mode*** in the EuroCUT Cutting window to ***Cut Single Sheets***. This selection will deactivate the material sensor used to monitor automatic advancing of rolled stock.

35. Error 8: “Unable to start cutter.exe module”

This error message appears when insufficient systems resources have been assigned to run an application (in this particular case, the cutter.exe. program) or if there is not enough space left on the hard disk to support it. Please save all unsaved jobs or modifications and exit Windows. Check the available hard disk space in the root directory by tying ***C:\dir***. At any given time, at least 10 MB of memory should be available on your hard drive to ensure proper operation of all programs. If this is the case, restart Windows and try to cut the job again.

36. Creating circle segments and arcs

The designing of logos or emblems frequently involves creating a variety of arcs or circle segments. With the EuroCUT node-editing tool, creating these shapes is a cinch:

- Drag open a circle with the desired diameter or radius.
- Use the node-editing tool to display all the pints for nodes on the circle.
- Double-click on the staring point.
- Apply the ***Break*** command in the dialog box.
- Now you are free to delete or move any of the individual points or circle segments to obtain the required
- shape.

37. Loading CorelDRAW4 color palettes

CorelDRAW comes with a few predefined color palettes. These files all have the extension *.pal and are located in the CorelDRAW ***Draw*** subdirectory. If you wish, these files can be loaded into EuroCUT via the ***Load Palette*** command and used as standard predefined color palettes. The ***Load Palette*** command can be accessed by clicking on ***New*** in the layer box and on ***Palette*** in the ***Layer Settings*** window.

38. IBM value point series

Computers of this series must be equipped with PC DOS version 6.3 or higher.

39. Faulty Screen Display

If your computer has a defective high-resolution graphics card driver, you may find that the EuroCUT desktop is not being displayed properly. To confirm that this is indeed the cause of the problem, install the standard Windows driver with a resolution of 800 x 600 and 16 colors. If this eliminates any display problems you were having, you have confirmed that the graphics card driver is defective. Please contact your computer dealer or the graphics card manufacturer to obtain an updated driver.

Note*: In rare instances, replacing the graphics card itself may be necessary.*

40. Importing Apple Macintosh Data into EuroCUT

When exporting data from an Apple Macintosh computer into EuroCUT, a number of guidelines have to be followed to ensure proper data transfer. All commonly used Macintosh desktop publishing and graphics programs (e.g. Adobe Illustrator, Aldus Freehand) are capable of exporting EPS files.

1. When creating outlines, do not use line widths greater than hairline (0.01mm/.00039 in).

2. Do not include any fills, as these are ignored during import and merely increase file size.

3. All text must be converted to graphics (text to curves).

4. Grouped or combined objects must not be converted.

5. Especially when exporting from Freehand, select the export filter for Illustrator format.

6. When naming files to be exported, be sure to comply with all MS-DOS rules governing file names. The file name must not exceed 8 characters. There must be a period after the last character. The name of the file format or the file name extension must not exceed 3 characters (usually EPS). Avoid using any type of special character.

7. Use an IBM-formatted disk for transferring the data.

Note: *In order for your system to perform flawlessly at any given time, all hardware and software components must work together in perfect harmony. Even a slight modification, such as installing a software update, may lead to conflicts within the system and disrupt operation.*

Tip: *Always try to obtain expert advice before attempting any modifications on your own.*

We hope these pointers have made getting started a little bit easier and wish you continued success in using your EuroCUT software!

Glossary

Terms printed in ***italics*** refer to additional glossary entries.

Additive Color System System based on the mixing of additive colors to fluorescent basic colors red, green and blue (RGB) as with televisions or color monitors.

Application Tape Tape used to transfer cut and ***weeded*** vinyl graphics to a substrate.
The tape's adhesion must be sufficient to hold even the tiniest letters while releasing them easily upon application.

Ascender The part of a lower-case letter (e.g. b) that extends above the main body of the letter.

Baseline Imaginary line on which all characters are placed in a line of text regardless of point size (with the exception of ***descenders***).

Bit Depth Mathematically possible number of colors for a given number of bits, e.g.: 1-bit color depth = 2^1 = 2 possible colors (black/white) 8-bit color depth = 2^8 = 256 possible colors/graytones 24-bit color depth = 2^{24} = 16.8 m possible colors

Block EuroCUT option for justifying text by which each line of text, ***excluding*** the last line, is extended to be flush with both the left and right margins. See also ***forced block***.

Bold Font which is somewhat thicker than the standard typeface.

Byte Smallest addressable unit in the computer memory, consisting of 8 bits.

Calibration Adjustment of printer and screen or adjustment to required values.

Cap Height The height of a capital letter from the top of the letter to the ***baseline***. Generally, the letter "H" is used for measuring.

Clipboard An area in your computer's memory used for temporary storage of data that was cut or copied. This data can be pasted from the clipboard into any file. This feature thus provides an easy way to transfer data from one program to another.

CMYC Cyan, magenta, yellow, contrast (black). Standard colors for four-color printing.

CMYC Color Area Total amount of all colors represented by the CMYC colors used for printing.

Color Depth The number of possible color tones that can be recognized by a scanner or reproduced on a color monitor.

Contrast Difference between light and dark parts of an image

Descender The part of a lower-case letter (e.g. g) that extends below the main body of the letter.

Desktop Space surrounding the ***working area*** on the computer screen, containing a variety of tools.

Digitize — To put an original image into digital form, either by entering points or lines through a digitizing table, or by using a scanner.

Dongle — Protective device included with EuroCUT that must be plugged into the parallel port (LPT1, printer port) in order to run the software. Also called copy protection key, security lock, or hard lock.

Download — To retrieve programs or data via modem from an electronic mailbox and load them into your computer.

EPS, EPSF — Acronym for Encapsulated Postscript Format. File format in which text and image data are stored in postscript format. This format includes text and raster data as well as bitmaps for displaying it on screen.

Font — Designates a specific size and *style* of a particular typeface, e.g. 12-point Helvetica, bold. Most typefaces include plain, bold, italic, and bold-italic fonts. The terms *typeface* and *font* are commonly (yet incorrectly) used interchangeably.

Font Style — Visual emphasis given to parts of a text string by adding text attributes such as bold, *italic* .

Forced Block — EuroCUT option for justifying text by which each line of text, including the last line, is extended to be flush with both the left and right margins. See also *block.*

Gamma Correction Method of adjusting color graduation taking into account how colors are perceived by the human eye when there are two adjoining areas of different colors.

Group Combining a number of objects in a group. Once objects are grouped, the positions of the objects relative to each other remain unchanged.

Guidelines Lines used as visual aids for positioning objects in the working area. Guidelines are only visible on the screen and are never plotted/cut or printed out.

Halftone Image Designates an image that contains various shades of gray or of color. The shades between pure white and pure black are called halftones.

Insertion Point Designates the blinking vertical line in a text box that can be edited.

Justification The alignment of a text block in the working area, either along the left margin, right margin, or centered between the margins. In addition, EuroCUT offers the following options: ***block*** or ***forced block*** and adjustment of ***cap height***.

Kerning The adjustment of spacing between characters to achieve type that is visually consistent and balanced. Characters may be extended (with kerning values above 100%) or condensed (with kerning values below 100%).

Overfill A narrow overlapping area at the edges of areas of color which are positioned over each other.

This ensures that there are no streaks at the boundaries. The overlap can be created by using an overfill or an underfill.

Point — Unit of measure equal to approximately 1/72 of an inch used to measure printing type. Included in the measurement are ***ascenders*** and ***descenders*** as well as a certain space above and below the character.

Process Colors — Scale of colors for four-color printing with cyan, yellow, magenta and black (key); it is possible to print any color by mixing these colors.

Resolution — The amount of detail in an image as measured in dots or pixels per unit (e.g. **d**ots **p**er **i**nch or dpi). Laser printers generally have a resolution of 300 to 600 dpi.

Scanning Resolution — Resolution for scanning analog images.
Formula:
Resolution (in dpi) = printing length (L/cm) x 2 (quality factor) x enlargement factor x 2.54 (for converting mm to in).

Streaks — Cracks at the boundaries of overlapping or adjoining areas of color or vinyl. They are especially detrimental in screen-printing or printing.

Subscript — Letters or characters placed below the ***baseline*** of normal text. Generally, such letters or characters are somewhat reduced in size.

Superscript — Letters or characters placed above the ***baseline*** of normal text. Generally,

	such letters or characters are somewhat reduced in size.
Upload	To send files and programs via modem from your computer into an electronic mailbox system.
Vinyl	Generally, two types of vinyl are available, calendared and cast. Cast vinyl is not stretched during the production process and is therefore less prone to shrinkage. Cast vinyl is generally more costly than calendared vinyl which tends to have less durability and a greater tendency to shrink. Vinyl materials used for cutting generally consist of three layers: 1. Liner (the bottom layer) 2. Adhesive layer in between the liner and the vinyl 3. Vinyl material
Weeding	The act of removing excess vinyl around cut graphics.
Working Area	The area on your screen used for designing and editing.
X Height	The height (measured from the *baseline*) of a lower-case “x”, i.e. any lower-case letter without *ascender*, in a particular font.

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